THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

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THE PRINCIPLES OF AGRICULTURE.

How much wheat or cheese can a farmer take from an acre of common, fair land, every year, and not impair its fertility? Suppose that he extracts the elements of wheat or cheese from his farm to the average depth of 12 inches; what amount of these elements will each cubic foot of his soil contain? In short, how much wheat, or how much cheese is there in that quantity of fair, common earth, provided one separated the whole of the matter that can by any known system of tillage, grazing or feeding, form the products named?

The bare statement of the propositions in the above form, is sufficient to satisfy a close observer, that not one man in a thousand has ever studied the first principles of scientific agriculture. Nor will the *things* in the soil that make good grass and a plenty of it, good wheat and sound potatoes, and a plenty of both, ever be generally known to the farming community till the elements of agriculture, like the elements of arithmetic and grammar, be well studied in common schools and academies. School boys can readily be taught to understand the language of science; but business men have little taste for, or patience with, what appears as the meaningless jargon of an unknown tongue. Take the case which we now have in hand. Our wish is to impart to all readers who know nothing of the terms and principles of analytical chemistry, a clear idea of all the substances in a cubic foot of earth that can be transformed into wheat or cheese. But the moment we begin to talk about the amount of phosphate of lime, and ammonia, in 100 lbs of soil, and the quantity of wheat or cheese which they will supply with those indispensable elements, the uneducated in agricultural chemistry will fail to comprehend the force of the reasoning submitted to his understanding. It will be like giving a boy a sum in cube root who has yet to learn addition, subtraction and multiplication. Hoping this defect in popular education will one day be removed by the Free Schools in the State of New York, we will proceed with our inquiry as to the quantity of wheat which a cubic foot can make, before the raw material will be mainly consumed in the crop, or lost in producing it.

No American citizen is so stupid as to believe that a bushel of wheat can be organized in any place from *nothing*. It will take *something* to make the first seed of this grain; and that something must come from somewhere. We have before us, in English journals, well authenticated cases, in which 200 *cwt.* of Peruvian guano applied to an acre of wheat have added a quarter, or 8 imperial bushels to the crop. Here is a gain of over four pounds of wheat to one of fertilizer. A critical analysis of any ordinary soil, of wheat, and of guano or bird dung, will show that the manure named will yield to growing wheat plants those elements of its seed, which are least abundant, and soonest exhausted in tilled land. These facts are of great practical importance, for they warrant the conclusion that so far as the material for making wheat is lacking in the soil, although the particular atoms needed be exceedingly small in the plant, yet the crop will not grow beyond the supply of its peculiar constituents. A great many experiments have been tried to determine what atoms are most needed in ordinary wheat soils to organize this grain; and ammonia or nitrogen in the form named, or in that of nitric acid, has been found most useful; but phosphates and sulphates of lime, potash and magnesia and common salt (chloride of sodium) are only a little less beneficial. Guano contains all of these as well as ammonia.

A cubic foot of fair wheat soil also contains all the elements of wheat or bird dung; but in no large quantities. English and Scotch farmers now grow about twice as much wheat per acre as any other farmers in the civilized world; and they do this simply by feeding the growing plants with the things known to be consumed by nature in organizing the crop. Strange as it may sound to such as have not investigated this matter, skilful dairymen have ceased to expect a cow to give a large product in butter or cheese, which is not well fed on nutritious food full of the organized elements of milk. Nor do they expect a dung hill fowl to form a decent shell to an egg without lime, or the egg itself, without organized nitrogen, sulphur, phosphorus and the other elementary bodies found in a chicken when first hatched.

The practical advantages of these researches are numerous. They reduce agriculture and rural economy to *a science* which is governed in all its essential parts by uniform and enduring Natural Laws. The time will never come when a calf or pig can form its bones out of iron; or when a kernel of corn will be organized from any other atoms than such as God first appointed, and fitted for the purpose. Hence, nothing is more variable than the quantity of corn, wheat and potatoes which can grow on an acre of land. Crops of this kind can never be made with the greatest economy of labor and material, till the composition of these crops be familiar to the farmer;

and he knows which elements are least abundant in his soil and in the atmosphere, and least available for use.

Stable manure kept under shelter, gypsum, salt, bones, ashes, and above all, the fertilizers that may be had from the vaults of privies in cities and villages, are rich in the elements of bread, meat, potatoes and cheese. If 100. lbs of dry *poudrette* will give 300 lbs. of wheat, why refuse to use this inodorous substance? Instead of planting five acres to raise 100 bushels of corn, why not try to grow that quantity on two acres or on one and a half?

Recollect that to waste the liquid excretions of a domestic animal, is to throw away half the value of its food, according to the experience of the best Belgian farmers. It is quite impossible to produce cheap food for cattle, horses, sheep and swine, without contriving to have cheap food for cultivated plants. A horse can live on nothing, or on pure flint sand, quite as long as a common vegetable. Make the economical improvement of land a particular study. It will repay you ten fold for the time so spent, in preventing the unskilful application of farm labor, and the unwise expenditure of money. Draining and liming are far from being as generally practiced as will prove advantageous to the soil.

GYPSUM—ITS ELEMENTS AND VALUE.

Eds. Gen. Farmer:—In the last Genesee Farmer I was pleased to see a brief notice, in a part of your late Address on Tillage, of the importance of gypsum to the farmer. Having been a subscriber for some time, I have long hoped to see in your paper a full analysis and description of this article. I am annually selling to cultivators of the soil, large quantities of Manlius Plaster, and I should esteem it a favor if you would turn your attention to this subject in your next.

1.—What are its elements as a fertilizer?

2.—Is its beneficial action upon the vegetable effected by absorption of mineral fertilizers from the earth, or from atmospheric gases, or both?

3.—Is its annual application to the same meadow, pasture or grain, prejudicial to the soil in the way of exhaustion?

Your answers, accompanied with such additional remarks as my questions may naturally excite, will not only much oblige a subscriber, but will doubtless be highly acceptable to a large portion of your numerous patrons. P. J. W.—*Fort Plain, N. Y., Jan'y*, 1850.

Answer to the above.—Our correspondent and all others are welcome to copy into any paper whatever appears in this journal, only not omitting, as too many do, to give the Genesee Farmer credit for its contributions to the agricultural literature and science of the United States.

Question 1st.—"What are the elements of gypsum as a fertilizer?"

Answer.—*Sulphur* and *lime*. As dug from the earth, 100 pounds of this mineral usually contains some 21 lbs. of water, which can be driven off by burning at a red heat just as the much larger per cent. of water in alum may be expelled when placed on a hot shovel, in making burnt alum. Burned gypsum consists of 41½ parts of lime combined chemically with 58½ parts of oil of vitriol, or sulphuric acid. In 40 parts of the oil of vitriol there are 16 of sulphur and 24 of oxygen. Omitting small fractions, there are in 100 pounds of ground gypsum the following ingredients:

Lime,	33 lbs.
Oil of Vitriol,	46 "
Water,	21 "
Total,	100

In the oil of vitriol there are not far from 18½ lbs. of sulphur.

Question 2d.—"Is its beneficial action upon vegetables effected by absorption of mineral fertilizers from the earth; or from atmospheric gasses, or both?"

Answer.—A bushel or one or two hundred pounds of this salt of lime spread pretty evenly over an acre, will soon be dissolved in rain or snow water, and can not essentially, if at all, increase the natural capacity of water to absorb common air or any fertilizing gases it may contain from the rotting of vegetables and animals on the surface of the earth. Gypsum does not, therefore in the opinion of the writer, contribute to the growth of plants from the fertilizers which it draws *directly* from the air, or from the soil. Being sufficiently soluble in water for all useful purposes, it enters directly into the roots of clover and other plants, and supplies their tissues with available sulphur and lime, from the lack of one or both of which the crop is diminished both in quantity and profit. In most soils it is available sulphur, more than available lime which is wanting; and ground plaster supplies this want. In 100 pounds of wool or hair there are five pounds of pure sulphur; which can only come from the grass, hay, and other food of sheep, cattle, and other domestic animals. The flesh and nerves of all animals, from man to the worm, contain sulphur. This comes from their aliment, which is derived primarily, from plants and the soil. When gypsum has enabled young clover, corn, peas, beans, and other plants to extend their roots in all directions, these extended roots imbibe food of every kind, including sulphur salts as well as phosphates, salts of ammonia, &c., which, without the aid of the gypsum, the comparatively few stunted roots had never reached, nor imbibed. The same law of vegetable development which enables the roots to descend deeper into the earth, and to extend themselves laterally, is equally operative in developing more and larger leaves above ground for the discharge of vapor and gases into the air; and probably, for imbibing aliment through the same organs. In this way, 15 or 20 grains of sulphate of lime spread over a cubic foot of earth, will enable little clover seeds, or the genus of the pea or bean plant to extract from that earth, more sulphur than the gypsum contained, and more of all else needed to form the plants named, both from the soil and the atmosphere.

Gypsum is not a "stimulant," for no plant has *nerves* or *muscles*, which can be *stimulated*. It is a simple, plain, every-day food, and nothing more. In all well drained, well-tilled land, sulphur salts need to be often added; because of their solubility and deficiency in quantity, in the soil. Form a stagnant swamp, or permit nature to do the same, and it will soon abound in the sulphate of iron, (copperas) in the sulphate of alumina and potash, (alum) in the sulphate of soda and magnesia, (epsom and glauber salts) and in the sulphate of lime, (gypsum.) Drain your swamp well, and away runs all your copperas, alum, glauber and epsom salts, and gypsum. Farmers must learn to feed their cultivated plants as they

do their hogs, sheep, cattle and horses—just what they need to meet the wants of nature, and *no more to be wasted.*

QUESTION 3d.—"Is the annual application of gypsum to the same meadow, pasture or grain, prejudicial to the soil, in the way of exhaustion?"

ANSWER.—It is not. If, however, the farmer is so unwise as to restore nothing in payment for the grass eaten by domestic animals, which per chance, daily go out of the pasture with full stomachs at night, and return with empty ones in the morning, as dairy cows often do; and he makes no restitution for the hay, grain and potatoes removed, then, of course, his land will grow poor, and poorer, and perhaps a little faster, by harvesting large, instead of small crops. Nevertheless, we seriously question the fact, whether a large crop impairs fertility more than a small one. On this point we have several highly interesting experiments in progress. If any reader sees, or thinks he sees, a material defect in our theory in reference to the beneficial operations of plaster, he will confer a favor by pointing it out.

TO DESTROY CANADA THISTLES.

MESSRS. EDITORS :—In your number for January, I see a letter requesting information relative to some practical mode of meeting the inroads of the Canada Thistle. This wide spread, noxious weed, is indeed alarming, though not necessarily so, except to the careless or inattentive cultivator, unless in stony and wet localities, unfit for, and preventing the free use of the plow. It cannot have escaped the notice of many of your readers, and probably you have once and again published the fact, that good wheat lands can be completely reclaimed from the dominion of the most inveterate growth of thistles by the simple process of a *free* and *timely* use of the plow. I am aware that many may say they have tried this remedy and found it to fail. To this remark I have only to say, that when *thoroughly* and *fairly* tried I never knew it to fail of so far succeeding as to leave scarce a thistle high enough at harvest to come within cut of the cradle; and that too, on fields completely covered with them before fallowing. This, however, applies particularly to old lands, where stumps, stones, &c., have been removed so as to present no obstacle to stirring the whole soil. But the desirable object of preventing the unsightly appearance in many harvest fields of rods, quarters, and half-acres of thistles left standing, or, cut only to open a passage to the laborers, can not be effected by the mere process of "breaking up," however well that may be performed. The determined resolution must be perseveringly carried out to put in the plow as soon as the thistles show a green surface, and this must be repeated to the third or fourth time, if necessary, previous to seeding, and if the season or time of plowing be hot and dry, so much the better. No one will understand that by this process a farm is to be cleared, root and branch, of this vile weed, in a single season, if indeed it be possible in a life-time, as the fields of the most careful farmer may be furnished from that of his adjoining neighbor with seed for a perpetual succession. It is merely intended to show the result of actual experience in some of the hardest cases in which good wheat has been raised without trouble from thistles. J. L.—*East Lansing, Tomp. Co., N. Y., Jan'y,* 1850.

STOCK IN GENESEE COUNTY.

BY E. S. BUCK.

EDITORS GENESEE FARMER.—I have just taken a trip for the purpose of seeing some fine cattle. Mr. HICOX, in Alexander, N. Y., has excellent cattle; he is much noted for matching and breaking steers, of which he has a number of yokes of different ages, all very good; one pair particularly, of two years old, handsome beyond discription.

I then went to see Mr. BRAINARD'S stock, in Attica N. Y., he has a large stock of Durhams, all in high order, and it would well reward any man to go and see them. He was not at home, but I could see much skill and intelligence in the management of every thing about him.

I then went to see Mr. BECK'S stock, in Sheldon, he was well pleased to show them, and well he might be. On going through his barn he opened the door which brought the cattle at once to view; and a more interesting sight I never saw. There were two large yards full of Devons, mostly pure blood; the older and the younger ones being kept separate, with a trough of pure running water in the middle. It was early in the morning; they had all been properly fed, and to see them play, was enough to make the heart rejoice. I saw other stocks of cattle which did credit to their owners.

On the other hand there are many Farmers whose cattle are half fed, and of all shapes and colors that can be thought of. Not having seen any better they suppose their own are excellent, or at least good enough, and have no thought of improving them. Such men should take some agricultural paper and they could learn to improve by the experience of others; they should go and see the stock of an intelligent reading Farmer, and learn the management of them; if so, we should have some fine cattle in almost every neighborhood, or at least in every town, which would be an invaluable benefit, not only to the owner, but to the community at large.

HEMLOCK SOIL.

MESSRS. EDITORS :—I notice in one of your papers an article on *Hemlock Soil.* I live in the town of Decatur, Otsego Co., and on hemlock soil, on a small farm of about 40 acres. For a few years past I have plowed some 3 or 4 acres of sod about the first of July, and let it lay until the last of August, and then thrown a light coat of manure over it, dragged it, and then sown my seed. In this way I have raised large crops of rye, much larger than those who plow two or three times. I think the more such land is plowed the more it freezes and thins out. Perhaps my experience may be of benefit to some. HAMILTON WATERMAN.—*Decatur, Jan.,* 1850.

SIMPLE REMEDY.—The following simple application for a horse's feet which are brittle, or hoof-bound, I learned from an English shoer, and having tried it with good effect and never having seen it fail, I send it to you to be used as you may deem proper.

Mix equal parts of tar and some soft grease, and having the foot clean and dry, apply it hot, but not boiling, to all parts, letting it run under the shoe as much as possible.

In bad cases the application should be made every day, for a while, and then two or three times a week, till the foot becomes strong and smooth. UTILITARIAN.—*Alfred, Alleg. Co., N. Y., Jan'y,* 1850.

Spirit of the European Ag. Press.

HUSBANDRY IN BELGIUM.

There is no subject connected with Belgium about which so much misapprehension prevails as its soil. We are accustomed to associate fine crops and superior farming with a fertile soil. And people generally, hearing of the great crops produced here, conclude without further inquiry that it is blessed with a fine soil and a finer climate—and the yearly, but not exaggerated account of the heavy crops, brought home by tourists, some of whom have compared the cutting of a field of wheat to the slicing of a plum cake, tend above all, to increase the mistake already abroad. The general character of the soil in the western provinces of Belgium, where the most perfect system of culture is carried on, is *lightness;* which includes all stages of fertility from the arid sand to the sandy loam. And though we find now much that really appears excellent soil, we have sufficient reason for supposing that it is not naturally rich, but has been brought to its present state of fertility by the most laborious cultivation, and there is not the least doubt, that if the farmers were to withdraw their careful attention from the soil, and the artificial treatment to which it is at present subjected were in the least relaxed, the broom and the fir would soon assert their ancient domain. The general aspect of the country is flat and open, not at all beautified by wood, and interesting to none but the farmer. There are no hedges, the fields being merely separated by ditches, on the banks of which are planted trees, which are cut at different intervals of time, from every fourth to every ninth year, according to the nature of the kind. They are planted merely to supply the people with firewood in those districts where other fuel is scarce. All kinds of trees are grown for this purpose. Some parts of the country are more wooded, which divests the scenery of that vapid tameness so peculiar to Belgium. But the cultivation of the country is by no means neglected. The luxuriant crops of rye, the healthy and equally dispersed drills of wheat, and the neatness with which all the fields are finished, give ample proof of the skill as well as the industry of the farmers. Grains of every stage of growth, and of every tint of green, flutter in the breeze, and the solid masses of ripe blossoms roll in the wind and form a beautiful contrast from their saffron yellow, with the surrounding crops. But there is still something wanting to animate this otherwise beautiful prospect. No herds enliven the landscape, no flocks send forth their bleating, and the milk maid's happy voice is mute. *Profit*, not *beauty*, is studied in Flanders. From Ghent to Antwerp we pass through the most thickly populated district in the world. There the soil is little better than sand, the most laborious culture is practised, and the greatest comparative average crops are raised of any district in Europe. In many places the soil presents a mottled appearance from the imperfect amalgamation of the sand with the decayed vegetable matter. In no part of the world, perhaps, is such strict attention paid to the tillage of each field; the consequence of which is, that the crops produced on the barren sand are not inferior to what you will find on ordinary soil. From the thickness of the population they are enabled to turn over almost all the soil with the spade, which would render the tillage, one would suppose, very tedious; but the tediousnes is not felt from the smallness of the farms and the excessive looseness of the soil.

A man with no pressure but that from his hands sinks the spade a foot into the ground; and truly it ought to be called *gardening*, rather than *farming*, from the great neatness and excessive care bestowed on every field. From the sandy nature of the soil, they are enabled to finish off each field with all the beauty of the flower-bed, while a border of well shorn grass, about ten feet wide surrounds the field, the edge of which is most carefully paved, so that on entering one of these fields, we are apt to suppose that we are trespassing on the carefully swept lawn of some noble residence. It is the Flemish farmers boast that the system of agriculture they practice has been handed down unchanged to them from their forefathers; and this is the more to be wondered at, when we consider that in no country have so many and such sanguinary battles and wars been fought and carried on as in Belgium. And yet the scenes of these dreadful struggles, the tendency of which is to retard all improvement, and to throw back to a state of pristine civilization all the arts of peace, of which agriculture is among the first, is also the seat of an organized and exemplary system of husbandry. Without attempting to account for this anomaly in the history of the arts of peace in a nation, let us proceed to inquire into some of the excellencies of that system which has been preserved amid the havoc of foreign and civil wars. The farms in Flanders are small, the average size not being more than fifty acres. Some are held on lease, others are not, and the duration of the lease varies from 3 to 15 years. The average rent for the best soils is not far from $8 the acre, besides the burdens or taxes, which usually amount to one-fifth the rent. The farmers of Belgium are a hard working class of men, in the habit of laboring on their farms, and generally ignorant of every other subject but their profession. But in this they show rare sagacity and experience. And though unaided by, and almost despising, the light of science, they discover in some parts of their system of agriculture a perfection to which science has never yet guided the farmers of this or any other country. The number of laborers, who live on the farm throughout the year is about six to the fifty acres, and they receive usually 20 shillings a month with their food, which the farmer values at about a shilling a day, making the full wages for a man equal to about $75 a year. Their food consists of boiled milk and bread for breakfast, soup or butter-milk and bread and butter for dinner, with potatoes and meat five times a week, and bread and milk for supper. They work at the different seasons of the year from ten to fourteen hours a day. The day-laborers, who are only employed at certain seasons, receive from 14 to 18 cents a day, with their food, and the boys and girls 10 to 12 cents. This must seem to us a very low rate of wages, but when we consider the corresponding cheapness of the necessaries of life, and that a laboring man can live very comfortably in any town in Belgium by paying one dollar a week for food and 20 cents for rent of a room, it alters the case materially. The number of horses kept on a farm is at the rate of a pair to fifty acres, and the number of animals supported altogether on such a farm far exceeds any thing we are accustomed to in this country. This, indeed, as we shall hereafter see, is one of the secrets of their farming. The keep of a horse is estimated at thirty cents a day. They are fed during the

winter on oats, straw, beans and hay, and in summer on cut grass. They are small, but compact, of beautiful action and high-spirited. These sleek Flemish horses were for ages held in high esteem in England and other parts of Europe. Their breed of cows is not distinguished by any peculiar excellence, as no attention has been paid to improving it. They have a practice by which they ensure the regular feeding of the calves, which is considered by them essential to quick fattening. This is, immediately after they have got their usual quantity of milk, to put baskets over their mouths, to prevent their eating anything in the interval between the feeding times. Very few sheep are kept, and these are of the worst description. Their fields are small, and merely divided by ditches. Such a thing as a hedge or a fence enclosing a field is never seen. These are unnecessary from the peculiar management of their stock. Under-drainage is rarely practised. Indeed the nature of the soil is such as not to require it. But to promote the drying of the fields, and to draw off the surface-water from the plants, a spading of earth is taken from each furrow, and scattered over the ridge, so that in a heavy shower, the rain-water finds a ready course to the ditch which skirts the fields. The attention which is paid to the working of the soil is one of the points in which they show their skill of management. They forbear from sowing any crop until the soil is thoroughly pulverized by repeated plowings and harrowings, and frequently resort to the spade to give additional depth to the furrow, and better to prepare the soil for the reception of the seed. The plows used by Belgium farmers are so simple and rude in their construction as scarcely to deserve the name. And in most parts of the country the spade is much more used for agricultural purposes. Such is the abundance and cheapness of labor, and the comparative scarcity of land, that it is common to weed out fields of grain and especially of flax, with as much nicety as a gardner in this country would weed a bed of carrots or onions. At certain seasons you will see rows of women in the fields creeping on their knees among the young crops and picking out with the greatest care the injurious weeds and grasses. This speaks well for the industry of the people, and could only be practiced in a community proverbial for indomitable patience and perseverance.

We now come to a subject which explains the grand secret of the success of the Flemish farmer in raising such large crops, and in transforming a country naturally unfruitful into what may justly be called the "garden of Europe." This is *his economy in saving, and skill in applying manures.* His first object and great aim is to save every thing which can possibly be converted into a fertilizer, to put back upon the land, and supply the constant drain of the elements of bread and meat which his large crops require. His ashes-cart and urine-barrels traverse every street in the town, and every bye-way in the country, to collect these valuable fertilizers to spread over his land. I have already mentioned the large number of animals, compared with the extent of the farms. This is an important feature in his system of husbandry, as they are kept tied up all the year round, and the utmost care taken that none of the manure is wasted. It is in this management that the farmers of Belgium excel those of every other country, and by this system they are able to raise larger crops than any other body of farmers in the world. Ashes are extensively used as a top-dressing, especially for clover. And they set so high a value, and depend so much upon them for the success of their clover-crop, that it is a current saying that, "he who buys ashes for his clover-crop *pays nothing*; but he who does it not, *pays double.*" On this all-important subject, the saving and application of manures, the farmers of our own country can learn a lesson from those of Belgium, and we may perhaps make it the subject of a future article. Suffice it now to say that this art, combined with unwearied industry and perseverance, has enabled them to convert a country naturally poor into one of unrivalled fertility. —*Washington, Dec.*, 1849. W.

CULTIVATION OF CARROTS IN FRANCE.

The skill of French farmers in cultivating root crops is well known. In no country in the world is the sugar beet so extensively and successfully grown, both for extracting the sugar, and for feeding to stock. The carrot seems lately to have attracted much attention among the most experienced farmers, and I give below their most approved method of cultivating this valuable root, by which they often get a crop of 12 to 1500 bushels to the acre. The variety mostly raised is the *large white, green topped*, which grow a good deal out of the ground. They are prefered to the orange from their producing so much larger crops, although they are acknowledged to be less nutritious. The experience of the best French farmers is, that *three tons of carrots* are worth as much as *one ton of good hay*, either for keeping horses or milch-cows through the winter, or for fattening cattle. Now, estimating the crop of an acre of carrots at 1000 bushels, and by proper cultivation it can be made far to exceed this, you have what is equivalent to at least *ten tons of good hay*, which as the produce of one acre, well repays the extra labor and trouble required.

The analysis of this root, as well as the experience of farmers, shows that 60 lbs., of carrots given to a cow will supply as much of the materials to be elaborated into milk as 20 lbs. of clover hay. Both cattle and horses eat them with avidity, and after a little time appear to prefer them to any other kind of food. These facts all recommend the more extensive cultivation of carrots by our farmers, and I translate the following from the "Journal D'Agriculture Pratique," as the most approved method of preparing the land &c., now practiced in France.

To ensure a large crop of carrots you must have a deep well drained soil, *sandy loam* is best, with a sub-soil through which the root can easily penetrate, it must be completely pulverized, and rendered light and friable by the frequent use of the plow and harrow; it must be well enriched with manure, and above all be kept free from weeds. By observing these conditions you can depend with some degree of certainty upon an abundant crop, and one that will amply repay the labor expended. In the fall, soon after harvest, select a suitable piece of land from your wheat stubble, and give it a light plowing about the last of October. Two or three weeks after give it a second plowing still deeper, or what is better, go over it with the sub-soil plow, having first spread evenly over the land about one-half the quantity of manure you intend for the piece. Let it remain in this state during the winter, and the effect of the snow and frost will be to pulverize and mellow the soil, rendered light

and permeable to the air by the fall plowing. In the spring, as early as the weather will permit, spread over the remaining half of the manure, and plow it once more. This throws up on the surface the manure first applied, which is already partly decomposed, and buries beneath the soil that last put on, where it more readily undergoes the decomposition necessary before it can supply the food to the future crop. The land thus prepared should remain until about the 1st of May, before putting in the seed. It should then be gone over with the harrow, and rendered as level and smooth as possible. To sow the seed, a small seed-drill is useful, as it saves much time and labor. When this cannot be procured however, it can be done by hand. The drills should be two feet apart, and as straight as possible. This is necessary that you may use a horse cultivator or small plow to run through the rows, which saves much labor in weeding. The quantity of seed required to the acre is about three pounds. It is best to sow it thick, and the first time you weed them, to thin out the plants, so that they may stand three or four inches apart. In this way they grow much larger, and although fewer in number, they will yield on the whole a much greater crop. It is sometimes said that carrots delight to grow amongst weeds, and it does seem as if the reverse of this is true, that weeds delight to grow among carrots. Indeed, it is the labor of weeding them, that deters many farmers from cultivating them extensively to feed to stock. But if they are carefully weeded out twice during the season, and frequent use made of the horse-cultivator to run between the rows, it will be found quite sufficient, and will not constitute a very severe tax upon the time and patience of farmers. They should be allowed to remain in the ground as late in the fall as the weather will permit, as it is found they keep much better in this case, than if harvested early. In most parts of France the climate is so mild, as not to render it necessary to dig them up, until they are wanted to feed out to stock during the winter. But in England and other countries where the winters are more severe, they are either stored away in cellars, or piled up in the field, and covered first with straw, and then with a light coating of earth which protects them from the frost. W.

THE "GOOD TIME COMING."

I REGARD the Farmer as the best paper of the kind with which I have the pleasure of an acquaintance. I hail this as a promising era to the Agriculturists of our country. They are, as a mass, awakening to a sense of the importance and honor of their calling, and the time will soon come when, instead of being looked down upon as an inferior class of beings, it will be considered as the most honorable title which can be applied to a man, to call him an intelligent farmer. But this state of things can not be hoped for without an unceasing effort. The farmer, instead of striving to become notorious in the political world, must bend his whole energies to the improvement of his farm, his stock, his system of husbandry and his *mind*. He must show to the world that he is proud of his profession by bringing his children up to it, and that too, with an education that shall make them men fitted for any station. And then, and not till then, may we expect Agriculture and Agriculturists to hold that place in society to which they are justly entitled. UTILITARIAN.—*Alfred, N. Y. Jan.* 1850.

Drill Husbandry.

CORN vs. WHEAT—DRILL CULTURE, &c.

MESSRS. EDITORS:—Much has been said on the relative profits of the wheat and corn crops of Western New-York. If you please, I will give you a short chapter of my own experiments. Last spring I found myself in possession of a field of eight acres on which wheat had been grown the preceding year. It was thickly seeded with blue grass, which I resolved to chastise by thorough summer-fallow. I had it turned over the last of April for that purpose, but then altered my mind and concluded to plant with corn. This last operation has completely annihilated the blue grass, a result which I could hardly have obtained by the most thorough course of summer-fallow. But now for the crop. I harvested from the 8 acres 600 bushels of ears of good corn. Not a very extraordinary crop you say, but wait a moment. Assuming that two crops of corn can be raised on the same piece, to one of wheat, and we have the following result:—The two crops as above, will give six hundred bushels of shelled corn, which at fifty cents a bushel, the average price, would give $300. One crop of wheat, at twenty bushels per acre, which is an average yield, would give, from the eight acres, 160 bushels, which at one dollar per bushel, would leave a balance in favor of the corn crop of $140, to say nothing of the cleansing of your fields of blue grass, red root, insects, and all the mighty hosts of enemies with which the wheat grower has to contend. Try it farmers of Western New-York, and see if I have figured right. Get you a wheat drill, if you have not one already—*any* one of them will answer. Seymour's is the *best*. By the way, do not be discouraged about the drilling system, because our enterprising friends at Brockport, in their efforts to simplify and cheapen, so as to bring their drill within the means of *all*, have given us a machine which is not in all respects perhaps what it should be, they will remedy that another year, and give us a *better* one. Get you a drill, I say, to plant your corn; and then a boy, with a team, will plant his 12 acres a day, and grow finely at that. Fill your cribs with the golden harvest; not to sell to the distillers to convert into whiskey, that bane and curse to humanity, but to convert into beef, pork and bread, to cause the heart of man to rejoice, and the widow's tongue to sing for joy. Do not plow up your ground in the fall (the opinion of Dr. LEE to the contrary notwithstanding) to bleach and "waste its fragrance in the desert air," but if practicable, plow it up one day and plant it the next; and then the fertilizing gasses (I do not know their names—Dr. LEE will tell you) as they escape from the earth, will be taken up by the growing crop and held in solution or in reserve for the future perfecting of the crop. Mother Nature is a great economizer, and curious rectifier of these matters. Read again the article in the last Farmer on the Philosophy of Tillage, and *blush* with me, at your ignorance of the *profession* which you have loved and cherished your life long, and resolve to send your sons to the Agricultural College which the *people* are now *demanding*, at the hands of your sapient legislators, as there is now some prospect that this just and reasonable demand, which we have made in vain these many years, will at last be granted. CALVIN SPERRY.—*Gates, Monroe County, N. Y., January*, 1850.

THE USE OF THE DRILL.

I HAVE used for the past two seasons the Drill for putting in the most of my wheat crops. Having come to the conclusion that the principle of *drilling* was the preferable mode of sowing grain, I, in the fall of 1848, hired a drill of RAPALJEE & BRIGGS, Rochester, one of Pennock's Patent. I did this for the purpose of experiment. It was the first drill used in this vicinity, and the result of its operations were watched with a great deal of interest both by neighboring farmers and myself.

The lateness of the season at which I procured the drill rendered it impossible to sow but few fields except my own; and indeed, I did not sow all my own wheat with it that fall,—using the gang and the harrow in the same field with the drill. The experiment confirmed me in the opinion I had formed of its utility, and I believe removed the doubts of a great many with regard to its usefulness, as is attested by the purchase since of quite a number of wheat drills in the neighborhood and vicinity; and if they do not come into general use, it will be owing more to bad construction, or want of skill in their use, than to any thing else.

The grain sown by the drill spoken of above grew and yielded handsomely. It was thought by some as well as by myself, that there was a marked difference in some fields in favor of the drill over either the gang or harrow; in others I could see no difference. Be that as it may, I again repeat my confidence in the mode of drilling in grain as preferable to any other now in use.

I do not know that my reasons for that opinion are new to any one, or different from the reasons of any body else, whose views coincide with my own with regard to the drill; but as my opinion has been frequently asked with reference to its use and benefits, its profitableness, &c., and which has always been expressed favorably, I will state MY REASONS for that OPINION, briefly.

First—The quantity you wish to sow to the acre can be determined, with great precision and accuracy; so much so that you might almost measure your land by the quantity of seed sown; no guess work about it.

Second—When the exact quantity of seed to the acre is determined upon, that principle of sowing which will give the most reasonable assurance that every grain sown will germinate and come to maturity, is most certainly the one to be adopted. The mode or principle that gives that assurance, (practically compared with any other in use,) is that of drilling; BECAUSE every grain is covered, and to such a depth as to insure germination, growth, and protection, till it is ready to yield up its 60 or an 100 fold. You see no seed lying scattered over the ground unburied where the drill has been to work, as is too frequently the case when sown broad-cast and put in with the harrow and other methods. No seed covered so shallow as merely to insure its sprouting and coming up, to grow awhile and then perish at last, for want of decent burial at first, sufficient to give it nourishment and support to the end. The drill in a great measure relieves you from these painful calamities.

Thirdly—On lands that are KLOWN to heave and leave the roots of crops exposed to the severity of cold bleak winds and frosts, the benefit of drilling must be apparent, owing to the reason, that the depth to which the seed is put in the ground, and the close manner in which the roots become matted together, before the frosty season comes round, give to the grain such a power of protection and resistance as greatly to overcome the evil.

Fourthly—Will a less quantity of seed to the acre drilled in, produce as much as the usual quantity sown broad-cast? (i. e., will 5 pecks, for instance, drilled in produce as much as six, sown broad-cast?) I cannot answer that question from experience satisfactorily to myself, and consequently to no one else. I am experimenting on that point, and will cheerfully make public the results when known. I can only say now that I incline to the opinion that a less quantity than is usually sown broad-cast, will answer. Why not, if a greater quantity of seed comes to maturity, when sown by the drill?

Fifthly—Can we obtain an equal amount of yield from the acre, by sowing the same quantity to the acre with the drill as when sown broad-cast? Most assuredly. And,

Sixthly—I would use a drill, whether I obtained any greater yield, or only as much, either from a less or the same quantity of seed sown to the acre, as by the usual method of broad-cast sowing, because it is such a neat, clean, handsome, satisfactory way of "seeding;" after your ground is properly prepared, one operation being all that is necessary to finish up in complete style both sowing and covering, saving the labor and expense of the former. If the rain comes down in the midst of your labor, you can bid it welcome; for it finds you with your work, *so far completed.* If your field is ready to sow, and you want to begin on a certain day, high winds need not prevent.

Seventhly—If my ground is suitably prepared, I can plant my corn, beans and peas, with a little extra care, as well with the drill, as in any other way.—Quite a saving of labor here.

The above, then, are in brief, chiefly my reasons, in favor of the principle of drilling. I have been asked how the drill would do on lands that are sweaty and spouty, where wheat is liable to perish on that account. I answer that the drill is no remedy against such an evil; and would advise such as have lands of that description to thoroughly underdrain, as the only remedy, and then the drill can be used upon them with pleasure and profit both.

Speaking of the drill, it is not to be supposed that it is yet brought to perfection, and no doubt all kinds have their faults and objections; some of which are vital, others of a less serious nature. We must be careful to procure the best in use. In my remarks on the relative value of drills, I shall speak only of those with which I am acquainted, and of those of which I have reliable information.

I found in using the Pennock Drill, although it executed its work sufficiently well and satisfactory, so far as getting the seed into ground was concerned, yet its complication, or perhaps I might better say, *the* fixtures, employed to adjust the drill-tubes, feeding-boxes, cylinders, &c., rendered access to these same drill-tubes, feeding-boxes, cylinders, &c., the very parts most needing care and attention while the drill was in operation, almost impossible, so far as relates to ease, facility, comfort, and what is of more value, profit—(time.) If any little accident occurred, such for instance, as the breaking of the "Wooden Peg," common to all drills, I believe, it was with some considerable difficulty with which you could

worm your way to the place of accident for its restoration. The same with regard to regulating the screws in the cylinder for the purpose of sowing a greater or less quantity of seed to the acre; as well also, as of a great many other little things absolutely necessary to to be "fixed" or handled during the time occupied in drilling. This rendered the use of said drill, to me at least, vexatious and troublesome, and quite objectionable; still it has its virtues. The principle of feeding with a cylinder I am much in favor of; if the drill is well made, and of good material it must be said to be *a good drill.*

I have not used the *Brockport Drill,* myself, but have examined it somewhat closely, and seen it in operation, as there were several bought and used in my neighborhood the past season. The drill seems to be simple in construction, and apparently quite easily handled and attended. But there is an objection or two brought against it, by some who have used them, which if true, must be vital:—and these are, that they easily clog in feeding, and do not distribute the seed evenly along the drill row, the feeding being done in pulsations. This is to be regretted; and it is to be hoped that the evil is not without remedy.

Of the *Seymour Drill,* I can only speak from reliable information. It is said to be a very simple, well constructed, handy, desirable drill. Mr. SEYMOUR attaches an apparatus for sowing plaster, ashes, &c., to his drill, if the purchaser requests it.

I used myself, last fall, a drill invented and built by BICKFORD & HOFFMAN, of Macedon, Wayne Co., and must say I am much pleased with it. I cheerfully bear testimony to the complete and satisfactory manner in which it performed its work, executing it to my entire satisfaction every way, and especially as regards the three vital duties a drill has to perform, viz, regulating the quantity of seed to be sown to the acre, its equal and even distribution along the drill-furrow, and the depth of its burial in the ground. It feeds with a cylinder. The drill is simple in construction, and can be used with great ease and facility, owing to the readiness with which you can approach all its parts, especially those needing handling and attention while in use. It is strongly and firmly made, and of good material.

I know of no objections to the drill that are vital, nor none of any kind that need deter its purchase and use. I think it might be improved in a still more handy application of its apparatus used in raising and dropping the drill teeth, &c. Raising and lowering them all at once for instance.

But these things will readily suggest themselves to the inventor and many others, who will no doubt make improvements to it, as fast as its practical use shall develope their necessity. W. S. FULLERTON. —*Sparta, Liv. Co., N. Y., Jan. 1st,* 1850.

SENECA COUNTY FAIR AND TRANSACTIONS

WE have received from JOHN DELAFIELD, ESQ., the able and energetic President of the Seneca County Agricultural Society, a beautifully bound and printed copy of their transactions, for 1849, in quarto form. We only wish that every county in NEW YORK, and the Union, had such a society, and each society such a President. We give a short extract or two from the address of WM. F. COAN.

Farmer, or mechanic, or laboring man of any calling, are you willing that your son, only because he holds the plow, or blows the forge, or drives the loom, shall be made to stand upon the outer porch and denied admission into that inner sanctuary where intelligence and refinement hold their Court! Shall your wife, shall your daughter, shall my daughter, when she takes her place in community, or society, shall her cheek be made to blush, not from guilt, not from a lack of cultivation, refinement, or of beauty, as she is pointed to a lower seat, solely because her husband or her father is a sunburnt farmer or a laboring mechanic! If ignorance or any other untoward cause has placed its withering hand upon us as a class, and confined us to a secondary position, let it be so no more. I speak to you, this day, in behalf of interests near and dear to me, and excuse me if I speak earnestly. No other design actuated the men who founded and sustained these agricultural societies, but to diffuse light and refinement in the place of ignorance and rudeness. And I felt it my duty, as I wish every man did his, to come and contribute of my means and my influence, limited though they be, to sustain this Society, whose annual celebration we have been permitted to attend.

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If your children are not under the necessity of cutting down the forest and subduing the uncultivated wild: if the kind parent has endured privation and want that his child may not: may the blessing of God and your child's gratitude be your's; but, may we ask, if, while you have filled the purse of your child, you have neglected his head? Alas, the remark or the question could not be answered by a great many without a blush, for many a father and mother too, live, so that they may, when dying, put much money or farms in the hands of children who cannot write a legible hand or spell beyond three syllables.

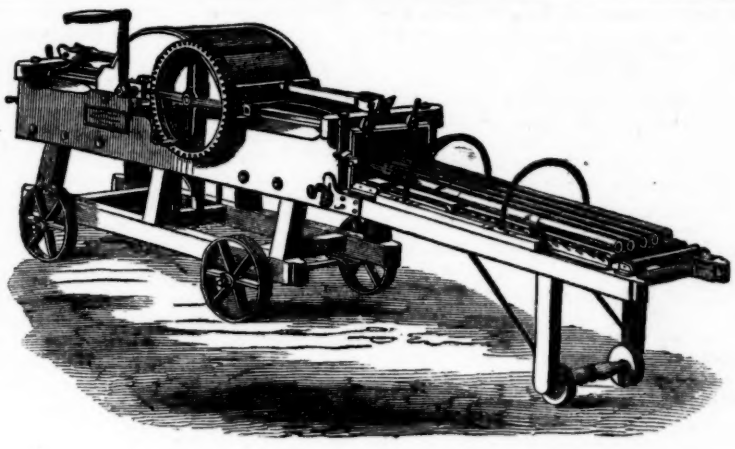
Do you say that you have not the time to devote to the cultivation of your child? Have you time to cultivate broad fields? Have you time to cultivate everything that adorns the farm or yard, and have not time to cultivate your own or the minds of your children? What makes you to differ from your ox? Nothing but the mind. If you fail to supply the mind of yourself or your child with wholesome, invigorating food—if you fail to occupy the mind with intellectual knowledge, it will be occupied with knowledge of a baser sort.

RURAL PURSUITS.

WE take the following extract touching this subject from the excellent Address delivered by S. B. PARSONS, of Flushing L. I., before the New Haven Hort. Society:—

"I recollect two prominent instances of the effects of these widely differing modes of life. A man of talent, strong mind, and energetic character, came years ago to reside in one of our large cities. He became a merchant; he devoted his whole soul to the acquisition of wealth; he made money his idol and his success was beyond precedent. He became enormously wealthy, house was added to house and land to land. His character became year by year more narrow and his hand more grasping, until no other thought occupied his soul but that of money. About the same period of the commencement of this man's career, there entered upon active life in a highly fertile rural district in the interior of the same state, a man of equal talent, of equal energy, and of practical ability, recognised by the highest in the land. Commencing life as a surveyor, he was early familiar with the beauty and pleasures of country life, and his soul became insensibly refined by evidences of Almighty benevolence around him. With abundant opportunity to profit largely by purchase of public lands, he confined himself to his business, and retiring with a very moderate competence, occupied himself with his farm and various branches of natural science. As a botanist he had scarcely his equal, and as a keen observer of natural objects he has not a superior. His style of living is of the simplest kind, and every thing about him indicates the superiority of the mind over the body. When I last saw him it was delightful to witness his simplicity of manner, covering, as I knew it did, so much intelligence and intellectual cultivation. And although his hair was white with age, his eye would sparkle with pleasure while descanting upon the beauty of a favorite tribe of plants.* Now can there be a question whose life was the most rational or most productive of enjoyment, this man's or that of the man of millions."

* This is such a faithful portrait of our venerable friend DAVID THOMAS, of Cayuga Co., that those who know him will at once recognize it.



TILE MACHINE—IMPORTED FROM EUROPE BY J. DELAFIELD, ESQ.

DRAIN TILE MACHINE.

Draining, now so generally practiced in some parts of Europe, is attracting considerable attention in our country. In the last volume of the Farmer we gave all the information perhaps necessary, and we now refer to the subject for the purpose of noticing the Tile Machine recently imported from England, by J. Delafield, Esq., President of the Seneca County Agricultural Society, for making Drain Tiles, Soles, Pipe and other objects of use to farmers.

This Machine combines every improvement which has been sanctioned by the experience of the English and Scotch Agriculturists. It has a variety of dies, either of which can be used and changed at pleasure. Mr. B. F. Whartenby, of Waterloo, Seneca County, N. Y., who is an experienced Potter, works this Machine, and has already furnished a variety of drain tile to the farmers at very reduced prices.

The high price of tiles has been the great objection to their use in this country: the facility with which they are made by this Machine has reduced the cost. The following list exhibits the sizes of Tiles and Pipes which can be produced as needed, with their prices at the factory.

DRAIN TILES.

4 inches high,	by 15	inches long at	$15	per 1000	Tiles.	
3	"	"	"	"	12	50	"	"
2	"	"	"	"	10		"	"
Soles for the above, if required,			$6	25 per		"	largest size
"	"	"	5	"		"	smallest size

DRAIN PIPES.

4 inches diameter,	15	inches long, at	$16	per 1000	pipes.	
3	"	"	"	"	14		"	"
2	"	"	"	"	10		"	"
1½	"	"	"	"	9		"	"
1	"	"	"	"	8		"	"

Pipes of larger size can be made by this Machine, also semi-cylinders of 6 and 11 inches diameter. Roof and ridge tiles are turned out with equal facility. To all who desire to understand the system of draining, we advise a reference to the article contained in the last volume, (1849,) October number.

A plowman on his legs is higher than a gentleman on his knees.

MORE LIGHT GIVEN.

BY CALEDONIA.

Messrs. Editors:—In answer to "*Ridgway*," I will in the first place remark, that probably no one in perusing the statistical products of the farm referred to, in the October number of the Farmer, but will readily percieve a typographical error in relation to the number of acres of improved land. Instead of ninety-six acres, it should have been one hundred and ninety-six. This farm is all arable land, all susceptible of producing the finest wheat, or grain of any kind, and also well adapted to clover.

In order to satisfy Mr. Incredulous, I will state the manner in which the farm has been cropped and cultivated, during the time I have been acquainted with its management. The farm is regularly divided into 17 lots, each of which is appropriated either to wheat, corn, barley, oats, or clover, alternately. For the purpose of discriminating the fields they may be numbered, and the quantity of land in each exhibited. Lot No., 1, containing 6 acres; No. 2, 10 acres; No. 3, 16 acres; No. 10, 15 acres; No. 11, 18 acres; No. 14, 22 acres; and No. 17, ½ acre; were in wheat at the time the farm was purchased. Some of the fields lie adjacent to the highway, and in their measurement a portion of road is included, therefore the quantity of wheat on the ground, was in the neighborhood of 85 acres. Lots No. 5, containing 6 acres in barley; No. 9, 10 acres, in corn and potatoes; No. 15, 8 acres, in oats; No. 12, 14 acres, in meadow; the balance of the fields in pasture, and about 4½ acres occupied by buildings and garden.

His stock consisted of five horses, four cows, 35 sheep, after disposing of 26 fat ones, and a sufficient number of swine to make pork for his consumption. The corn and oat crops averaged about 40 bushels per acre, which afforded sufficient feed for teams, making pork, &c. Eight bushels of clover seed was sown on the fields, under wheat, and five tons of plaster. In lots No. 2 and 3 the clover caught well; the others very indifferently, owing probably to the wheat being extremely thick and heavy, and the fore part of the season rather dry.

The next season, were fallowed, lots No. 4, containing 16 acres; No. 6, 6 acres; No. 7, 12 acres; No. 8, 20 acres; No. 13, 10 acres; all of which were

cropped, with the exception of No. 13, which was put in on the first furrow with the cultivator; and lot No. 5, was put in after barley and well manured.—Making 70 acres, including fence and some road.

Lot No. 8, was the last field sown, fininshed on the 19th. of Sept. There were 30 bushels of seed, (soles wheat) sown on this field, which was a trifle more than 1½ bushels per acre. It was harvested and thrashed separate from the rest of his crop;—it produced 793 bushels, all of which was suitable for seed, and more than one half was used as such. This lot lies adjoining the highway, and the 20 acres includes nearly one acre,of road.

Lots No. 1, 9 and 17 were sown to barley without any manure; they produced 484½ bushels. Lot No. 15, was sown to oats again, in consequence of the drouth destroying the clover the year previous; the crop was more abundant than the first—some 45 bushels per acre.

Lot No. 12, a clover sod, which had lain two years, was planted to corn and potatoes, without applying any manure, it produced 1425 bushels of ears of corn, and 164 bushels of potatoes.

Lot No. 2—a crop of clover hay was taken from it the last day of June, and at the commencement of September following a crop of seed of 29 bushels. This item was omited in the products of the second year, therefore $85 should be added to the profits of the farm, and a sufficient quantity was reserved for the use of it for the next year.

Lots No. 3, 10, 11, 14 and 16, (the last of which contains 2 acres, and appropriated to the most choice fruit trees which furnishes a large supply of all kinds of fruit,) were in pasture. The quantity of clover seed sowed on this part, was seven and one half bush. and 6¾ tons of plaster were sown on the wheat and barley, and some 400 used on the corn and potatoes. The clover this season took as well as could be desired, the fields at the begining of winter were clothed with one of the most valuable fertilizers of the soil that can be produced, and from which the finest crops always ensue. The farm this season kept six horses, four cows, three calves, ninety-five sheep, and fifteen swine.

The lots put into wheat, the third year were No. 10, 11, 14, 16, all of which were fallowed early, and plowed twice. No. 15, was put in after the second crop of oats, with a fine dressing of manure; and lots No. 1, 9 and 17 were sown after barley, which make 80 acres and upwards. Lot No. 12, was in barley, the remainder of the fields were either mown or pastured. That which augments the profits of every farm, is the growing of all kinds of spring crops, at least in quantities sufficient for the feeding of teams, fatting pork &c. The occupant of this farm produced a surplus of these crops; therefore instead of using a portion of the money arising from the wheat in bying mill-feed for teams, &c. he has added several hundred dollars to his profits, from the sale of barley and corn.

This farm contains preicsely 215 acres of land, 196 of which is cultivated. It was bought in the winter of 1847, for the sum of $3,100, with 85 acres of wheat on the ground; it was sold a few weeks since at $70 per acre. There are 65 acres of wheat on the farm, and 10 acres of which are reserved in the sale, which at least is worth $200. The expense in making improvements during the time, will not exceed $150.

The occupant's net profits from the farm for the whole period, after deducting all expenses, amount to $6,300; which pay an interest of fifteen per cent on the capital invested, including $700 of capital for money invested in teams, utensils &c.

If I have not been sufficiently minute in a detailed history of the management of the farm referred to and in order to satisfy or remove the doubts of "Incredulous," I will make another effort, if requested.—*Caledonia, Liv. Co., N. Y., Dec.*, 1849.

IMPORTED CATTLE—BATES' STOCK.

The August number of the "Farmer," for 1849, contains an article on the "recent importation of short horns," which does not entirely coincide with my views. The writer, referring to the bull, 3d Duke of Cambridge, which he had the honor of importing, says: "Breeders, desiring the blood of Mr. Bates, can no wnere else in this country, procure it *with such high characteristics of style, quality, symmetry, and substance.*

Allow me here, before discussing this paragraph, to remark, that *honorable competition* in breeding domestic animals, cannot fail to be a fruitful source of improvement, and should be countenanced and encouraged by every individual who desires to see the stock of our country raised to that high standard which its importance so justly merits and demands. The individual, however, who enters upon this enterprise with a desire and a determination to excel, will soon find himself surrounded with perplexities and prejudices, which he little anticipated; and, however desirous he may be to avoid controversy, circumstances may occur, where justice, both to himself and the public, demands that he should no longer remain silent. Experience will also sooner or later prove, that there is neither honor or profit to be acquired, by resorting to the frail support of either directly, or indirectly, assailing, or endeavoring to disparage the stock of others, by the assumption of high sounding pretensions, which cannot bear the test of truth and scrutiny.

But to the point. We presume no one will deny, that any one animal from any herd, to possess the power of imparting to his produce, "*higher characteristics of style, quality, symmetry, and substance,*" than any other animal from the same herd *must* possess more of the *choicest blood* of that particular herd. To doubt this, is at once questioning the efficacy of *blood animals.* The most natural inquiry, therefore, which would arise from a perusal of the paragraph quoted, would be—"What is the *particular strain of blood*, in the late Mr. Bates' herd, which is superior to *all other*, and which gave him such a deservedly wide spread fame and reputation as a breeder?"—Now let this simple fact be clearly defined, and if 3d Duke of Cambridge possesses more of *such blood*, than any other animal in this country, then he may be fairly entitled to his claimed position of superiority. This is a point of the greatest importance to breeders of Short-horns in this country, and *particularly* so, to "all who wish to procure the blood of the late Mr. Bates' herd."

In order, therefore, to prove to the public conclusively, and to place the matter beyond the possibility of a doubt, that the *choicest blood* of Mr. Bates' herd consisted in his *pure, unalloyed Duchess tribe*, we quote his own opinion, from a communication addressed to the publishers of the print of his bull,

Duke of Northumberland. After giving the pedigree of this bull, Mr. Bates says:—

"The *whole* of this family" *(Duchess family, S. P. C.)* "of Short-horns are *alone* in my possession, having purchased my original cow of this tribe of cattle of the late Charles Colling, Esq., of Ketton, near Darlington, 35 years ago. They had been in the possession of Mr. C. Colling, 20 years, who purchased his *original cow from Stanwix*, of the agent of the late Duke of Northumberland, and called *her Duchess*, (which is the reason I have named the bull after that family,) as they are justly entitled to be held in commemoration for having possessed a *tribe* of cattle which Mr. C. Colling repeatedly assured me *was the best he ever had or ever saw*, and that he was never able to improve upon *her*, although put to his *best bulls*. And I have undoubted information from the best authority for saying that *this tribe* of Short-horns, were in the possession of the ancestors of the present duke, for *two centuries*; and that Sir Hugh Smythson, the grandfather of the present duke, kept up the celebrity of this tribe of cattle by paying the utmost attention to their breeding; and that he used regularly to weigh his cattle and the food they ate, to ascertain *the improvement made in proportion to the food consumed;* a system I adopted nearly 50 years ago, not knowing that it had been previously done; and from a minute and close attention to this subject, I obtained that knowledge of cattle, which enabled me to judge of their *real merits by their external characters*—and which I have never found to fail in my experience for above forty years as a breeder. From that knowledge, thus acquired, I selected *this tribe* of Short-horns as *superior to all other cattle*, not only as small consumers of food, but as great growers and quick graziers, with the finest quality of beef, and also giving *a great quantity of very rich milk*. The cow I bought of Mr. C. Colling, in 1804, calved at Halton Castle, in Northumberland, June 7th, 1807; she was kept on grass only, in a pasture with nineteen other cows, and made in butter and milk for some months, above *two guineas* per week, or *forty-two shillings* in English money."

We have in this extract, the opinion of Mr. Bates himself, in regard to the Duchess blood, as being *superior to all other*—also confirmed by the opinion of Mr. Charles Colling, who repeatedly said, *it was the best he ever had or ever saw.*

Now, whether this 3d Duke of Cambridge possesses more of *such blood*, or, if you please, has the blood of Mr. Bates' herd, with "higher characteristics of style, quality, symmetry and substance," than any other bull in this country, a brief reference to *pedigree* will show.

"*Pedigree of the 3d Duke of Cambridge*, (5942.) Roan, calved September 14th, 1841, bred by Thomas Bates, property, &c. Got by Duke of Northumberland [1940]; dam Waterloo II., by Belvidere [1706]; grand dam by Waterloo, [2816]; g. g. dam by Waterloo, [2816]." [Coates' Herd Book, 4 vol., page 614.]

By this pedigree it will be seen that 3d Duke of Cambridge possesses *only one quarter* of Duchess blood—his *sire*, Duke of Northumberland, being a *half* Duchess bull, and his *dam* Waterloo II, *having no Duchess blood in her.*

Among the individuals who have imported stock to this country from the late Mr. Bates' herd, we believe the importations of Mr. George Vail, of Troy, N. Y., have been the most extensive. In 1839 or 40, this gentleman imported direct from Mr. Bates, a bull calf, Duke of Wellington, and a heifer, Duchess. For the purpose of *comparison*, we insert the pedigree of Duke of Wellington, 55, [3654] as given by Mr. Bates.

"Roan, bred by Mr. Bates, &c. Calved Oct. 24th, 1839; got by Short-tail, [2621]; dam Oxford, [having obtained the first prize for the best Short-horned cow, open to all England, in July, 1839, given by the Royal English Agricultural Society,] by Duke of Cleaveland, [1937]; g. d. Matchem cow, by Matchem, [2281]; g. g. dam by Young Wynyard, [2859] sometimes called Young Wellington."

By this pedigree it will be seen that Wellington's sire, Short-tail, was also a *half* Duchess bull. So far then his *equality* with Cambridge, as to Duchess blood, is established. But if we examine a little farther into this pedigree, we shall find that Wellington's dam, Oxford Cow, was *also* got by a *half* Duchess bull, Duke of Cleveland. Consequently, the *produce* of Wellington, from a cow *without* Duchess blood, would possess nearly as much Duchess blood, as Cambridge himself.

For the illustration, and to show the puplic that there are other animals in this country that possess *more* Duchess blood than Cambridge, we insert the pedigree, in part, of Mr. Vail's Duchess.

"White—bred by Mr. Bates, &c. Got by Duke of Northumberland [1940], dam Non-such the 2d, by Belvedere [1706], g. dam Non-such by Magnet, [2240.]" &c. &c.

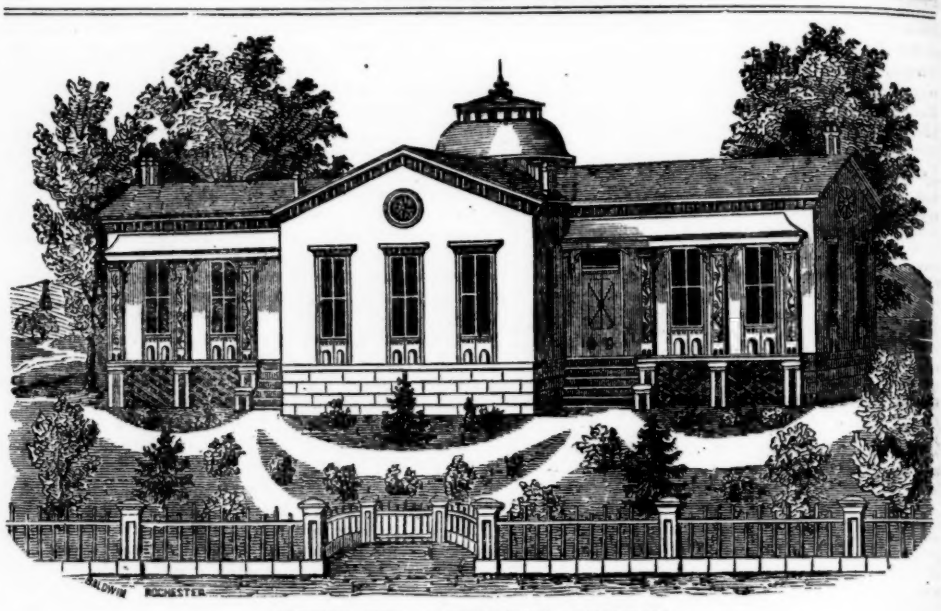
Mr. Vail's prize bull, Meteor, 104, was out of this heifer, and his sire is Duke of Wellington. He has therefore *three crosses* of the Duchess blood, and so also have the bulls Mr. Vail has sold to Col. Sherwood, of Auburn, N. Y., (and we can well bear testimony to the worth of this bull, Symmetry, as we have a cow of his get, and a very superior animal she is,) Col. Hampton, of S. C., Messrs. Ferguson and Wetenhall, of C. W., and Thomas Hillhouse, of Watervleit, N. Y. We might continue this account, as Mr. Vail has three more imported cows, sent him by Mr. Bates, all of which possess strains of the Duchess blood, but we deem it unnecessary.

We learn by the agricultural papers, that the *whole* of the late Mr. Bates' herd are to be sold the coming spring or summer; and consequently the *Duchess tribe* which Mr. Bates has always retained *exclusively in his possession*, will be dispersed in the hands of many. From the enterprise which has thus far characterized Mr. Vail, as a breeder, we sincerely hope and expect he will not let this opportunity pass without the introduction of one or more animals of the *full* Duchess blood, into his herd. He has already done much to bring the *Bates Stock* into deserved reputation in this country, and the benefit which its introduction has conferred upon other Durhams, which have received only a single cross of this strain of blood, is immense. We hope he will now introduce the Duchess blood *without alloy;* and we confidently expect the day would not be far distant, when the price of the American Short-horns, will compare favorably with the high sales of this stock in England. S. P. CHAPMAN.—*Clockville, Mad. Co., N. Y., Dec.* 1849.

JEFFERSON COUNTY AGRICULTURAL FAIR.

We make the following extract from an address delivered before the Jefferson County Agricultural Association at its late Fair, held at Watertown, in this State, by MOSES EAMES, Esq., President.

"The Ladies, too, with a laudable spirit of competition and taste, have contributed handsomely to rendered this an occasion of delightful entertainment. Their presence and cheering smiles, always agreeable, are none the less so when they undertake to illustrate by their deeds the generous impulses of their hearts. The wives and daughters of the farmers of Jefferson county are able to show by their works that they have a common interest and sympathy with their husbands and fathers. It is their pride to exhibit in every room of our dwellings the productions of their industry, taste and skill. Cheerful, free, intelligent and happy at home, they have learned happily to blend all these qualities with industry and frugality, and wisely to accommodate themselves to the circumstances with which they are surrounded. The garden, the door-yard, the kitchen, the parlor, all present favorable indications of the character, intelligence and good taste of our Ladies. *More* than this I *need* not say: *less*, in justice to myself and them, I *could* not."



DESIGN FOR A SUBURBAN RESIDENCE.

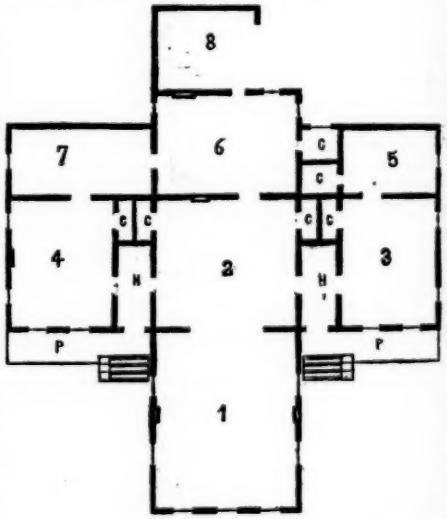
This beautiful cottage was designed by W. M. McConnell, of this city, for James Harris, the well known Landscape Painter, who intends to erect it on his ground within about one mile of the city. Many who have seen the design say that they know of no plan, combining so much of beauty and convenience, at so small an expense. Careful estimates and propositions for the erection of the building have been made, from which we think we may safely say the building could be erected here for $1,500. Every one, however, must be aware that the cost will vary in different places, governed, of course, by the cost of materials and labor. The only safe plan would be for each one having any idea of using this design, to obtain an estimate by some competent person in his own locality. Architects are apt to make their estimates too low, and serious embarrassment to the person building, is often the consequence.

In this estimate, it was to be built of brick, and painted. The parlor, it will be seen, is large, and connected with the dining room by sliding doors, as shown on ground plan. The finish of these two rooms is intended to be the same; the dome in the dining room, as shown in perspective, is intended to start from the level of the ceiling, to be made plain and plastered, and then painted in imitation of pannels. There is no window in the dining room, and this dome furnishes all necessary light. The height of ceilings is twelve feet in the clear, with a cornice to correspond with that on the outside.

Two verandas, one in front of the sitting room and one in front of the family bed-room, will be seen on perspective. They are to be built light. The cornice on these will be the same as on the house, but lighter. The cornice on the house will have a projection of two feet, bracketed, as seen in drawing.

This cottage may be built of wood in localities where a wooden building can be erected at a much less expense than brick or stone.

In the arrangement of the ground plan, changes might be made to suit the convenience or fancy, though Mr. H. thinks the plan as good as can be devised. At our suggestion the kitchen was enlarged from the original plan. We think most architects err in making small and contracted kitchens. The kitchen is the business room, and we think should be the most commodious one in the house.



GROUND PLAN.

1, Parlor,	18	by 23 feet.
2, Dining-Room,	18	by 17½ "
3, Bed-Room,	17½	by 14 "
4, Sitting-Room,	17½	by 14 "
5, Bed-Room,	12	by 14 "
6, Kitchen,	18	by 13 "
7, Bed-Room,	12	by 14 "
8, Wood-Shed,	14	by 12 "

p, Porch. *c*, Close.

h, Hall.

NOTES FOR THE MONTH

The late opening of the Chemung R. R. to the head of Seneca Lake, and the Ithaca and Susquehanna R. R. from Oswego to Ithaca; has already opened a winter trade between western New York and the city of New York, through the Erie Rail Road, which gives an earnest of that great change in trade, which must favorably increase, change and modify, both the rural and domestic products of Western N. York.

The beautifully rural village of Aurora, on Cayuga Lake, has been of late, as if by magic, suddenly transformed into a busy animated mart or depot, from whence, fruit, pigs, and poultry, are daily shipped by steam to Ithaca, thence by Rail Road to Piermont and New York. On the Seneca Lake still greater changes have taken place. From Geneva two Steam Boats now start daily for the head of the Lake, loaded with passengers and light freight, up and back; freight barges are towed daily, loaded with bales of cotton and raw materials, for our Factories, as well as other articles down; and pork, whiskey, flour, &c., up. It is supposed that this very cheap winter communication with New York, will have the effect to lesson the fall purchases of our Manufacturers in Western New York, as well as to modify, change and increase the productions of our farmers generally. Fruit, pigs, poultry, &c., which heretofore have not been considered as paying products to the farmer, beyond a limited home or barter-trade; begin now to be a great element in this winter trade with our great Commercial Metropolis.

The late accounts from California seem to indicate that a reaction has commenced there in earnest. Labor is becoming cheaper, the Diggings are submerged in water or covered with snow; provisions are enormously dear, and vegetables are not; to those diseases which ordinarily afflict humanity on land, is added that loathsome scourge of the briny deep, scurvy. The presence of this malady alone, proclaims the sterility of the gold region to be a fixed fact; as in every other situation in the same latitude, not a desert; wild uncultivated nature has ever been found rich and beautiful in anti scorbutic productions. A practical farmer here just returned from the gold region, avers that the best portions of Upper California may possibly produce peas and grass, without irrigation, but that Indian corn and vegetables, must perish, either from cold and wet at first, or drought afterwards. He went over the famed plantation of Capt. Sutter, seeing it only as a barren sandy plain, with little evidence of its ever having been cultivated; an arid waste which no verdure quickened; but perhaps some allowance is to be made for the distempered imagination of a man longing after the leeks and onions of Seneca County.

Sixty-six subscribers to the Genesee Farmer, for 1850, have already been registered at our Post Office; yet what is this number compared to the thousands of farmers who sell their wheat and corn here? While many of our best farmers aver that they would not be without an Agricultural paper for ten times its cost, such is the benefit they think they receive from the theory and practice of others. Yet strange as it may seem, the number of those who have learned all without the aid of a book, is legion; and the variety which belongs to the moon tilling genera, cannot but be truly interesting to him who loves darkness rather than light.

From the late recommendations of Gov. Fish, and the President of the United States, it would seem, that Agriculture is now about to come in for a share of that public bounty, which has been heretofore almost limited to the Fisherman and the Mannfacturer. But let every farmer put his own shoulder to the wheel without waiting for Hercules. In speaking of the education of farmers sons the veteran Editor of the Ohio Cultivator says: "However unwelcome the truth may appear, it is a fact which cannot be blinded, that the want of *education* or a proper developement of *mind* on the part of the mass of our farmers, is the *great* obstacle in the way of all improvements; and only by the removal of this barrier, can we hope to see the profession of Agriculture rise to that position and dignity which it should ever occupy in the land.

Let farmers no longer be content to see the school master abroad for the benefit of the more pretending classes; but let them at once take him home to their own school district, and domesticate him there, in the place of that itinerant low priced nonentity called a teacher, whose usurpation of the title is only a burlesque or a satire, upon the intelligence of those who employ him. S.W.—*Waterloo, N. Y., Jan.*, 1850.

PRODUCTS OF WAYNE COUNTY.

Address delivered before the Wayne County Agricultural Society, at its Annual Exhibition, in Palmyra, N. Y., 1849, by R. G. Pardee, Esq.

Mr. Pardee's address has given us much satisfaction. He has carefully brought out many useful facts in regard to his own county, as will be seen by the following extracts:

We further learn that the offices in our county cleared, during the last year, within 2 per cent. as many potatoes as the entire state west of us, via the Erie Canal, including Rochester, Buffalo, &c., and within less than one per cent. as much barley, as the whole state west on the Erie Canal.

We also learn what was to me an astonishing fact, that the offices in Wayne county, during the year 1848, cleared more dried fruit, by more than 30 per cent, than the entire state west of us, to and including Buffalo; and also, more by 15 per cent. than the entire state east of us. The offices west cleared 538, 000 lbs.—those east 610,000lbs,—while Lyons and Palmyra cleared 708,000 lbs., or more than 30, 000 bushels.

This is indeed a noble tribute to the industry of the daughters of Wayne county; (for the women and children do the most of this work;)for who can calculate the enormous amount of labor, in drying 150,000 bushels of apples, peaches and plums—this being the requisite amount to make the 30, 000 bushels when dried.

For several years past, the Palmyra office has cleared about 60, 000 barrels of fine grafted apples per annum, or 150,000 bushels more of fruit; and if Lyons, Newark and Clyde together, send off as much more, (as they doubtless do from 50 to 100 per cent. more,) we then have the aggregate of 400,000 to 500,000 bushels of fruit, in a green and dried state, exported annually.

We may deliberately add, that the superiority of Wayne County Apples is as well known and appreciated in the New York market, as are the Princess Bay Oysters, or Orange county Butter. And if any of you wish to know whether our county produces peaches, pears and plums, unsurpassed in size and delicious flavor, even by the warm climes of the more sunny south; let me ask you to visit such magnificent and well cultivated fruit yards as Mr. Theron G. Yeoman's of Walworth, Messrs. J. Thomas and Wm. R. Smith's of Macedon, or Mr. J. G. Dickinson's of Lyons; not to mention many others around us; and you will be entirely satisfied.

And yet the capacity of Wayne county to produce fine fruits, has hardly begun to be tested; for at no previous day has there ever been enkindled a tithe of the enthusiasm to cultivate choice fruits, which is now prevading every mansion and hamlet within our borders, and infects almost every man who is so fortunate as to possess a portion of our luxuriant soil, sufficiently large to plant a tree, or nurture a hill of strawberries.

Horticultural Department.

EDITED BY P. BARRY.

FACTS TO BE REMEMBERED IN PRUNING.

THERE are important differences in the modes of growth and bearing of the various cultivated fruit trees, subjected to pruning and training, that every cultivator should study carefully. Every species is governed by laws no less regular and observable in this respect, than in their periods of blossoming and maturation; and these laws should be taken into strict account in pruning and every other process intended to modify the growth and productiveness of bearing trees. Most cultivators are too apt to overlook these important points, and hence the principles of pruning are badly understood. Immediate effects alone are too frequently looked to. If the head of a tree be too dense, or certain branches too long, a certain number, or a certain length, is cut away without considering the results that must follow; and it is this unskilful and undiscriminating pruning, as well as a total neglect of it, that produces such vast numbers of unsightly and unprofitable trees as now cumber the ground of a large portion of our orchards and gardens. At present we can give but a few hints on the subject, by way of calling attention to these points

The *Apple*, *Pear*, and *Quince* are all similar in their mode of bearing. The fruit buds are usually produced on spurs or short stout shoots along the sides of branches of two or more years' growth, and these shoots or spurs continue to renew their fruit buds and bear for several years in succession, if they enjoy the advantages of light and air, and are not deprived of a sufficient supply of nutriment by rapid growing portions of the tree above them. Occasionally we see fruit buds formed on the ends of shoots of one season's growth, but this is rare, except in particular varieties. The Quince is usually borne on the ends of the spurs.

The *Peach*, *Apricot*, and *Nectarine* bear their fruit almost exclusively on shoots of the previous year; the fruit buds forming during the first season's growth.

The necessity of keeping up a constant annual supply of young wood on all parts of the tree, is therefore obvious. The same shoots bear only once — occasionally fruit spurs are produced from other branches, but these are comparatively feeble; not to be relied on.

The *Plum* and *Cherry* are quite similar in their modes of bearing. The shoots of last year, 1849, will, during 1850, become furnished with fruit buds that will produce fruit in 1851. A few buds towards the extremities of the shoots are usually developed into new shoots, while all the buds below are transformed into fruit buds. It sometimes happens when Cherry trees are not growing vigorously, that the buds at the base of the shoots become fruit buds the first year, and bear the next.

The *Morello Cherry* and a few others of its class, are exceptions to this rule, and they bear like the peach on wood of the previous year, the fruit buds being formed on the lower parts of the shoots of the current year.

Gooseberries and *Currants* produce their fruit like the Cherry and Plum. The fruit buds forming on shoots the second year, and bearing fruit the third and afterwards.

The *Grape Vine* and *Raspberry* are similar in mode of bearing, and differ from all the others. The fruit is produced on shoots of the current year's growth, starting from wood of the previous year. Young shoots from other parts of the vine do not produce fruit, but will the year following produce fruit bearing wood.

ANSWERS TO CORRESPONDENTS.

"M.," Geneva. It would give us great pleasure to give your letter a place in our columns as affording a very happy illustration of the way in which a love of gardening is growing up amongst us, and its practice and principles attracting attention and study; but the limited space we are allowed does not admit, as you will see, of anything but short and purely practical articles. We have to deny ourselves many a pleasure for this reason. We shall at all times feel obliged for an account of your success and mode of operation.

J. FRASER, Mecklenburg, N. Y. Your communication, which appears in this number, was mislaid, owing to some changes in the office, this is the reason it has not been acknowledged.

PROFITS IN PEARS.—In the fall of 1848, Mr. John Washburn, of Plymouth, bought two dwarf pear trees, (on quince stocks,) at $1.25 each. He set them that fall, and in less than a year from planting the trees, he took a dozen pears from them, and exhibited them at the annual show of the Massachusetts Horticultural Society, for which he received a premium of $6, and he sold the pears for $3 — making a dividend of $9 on the small investment of only $2.50. The pleasure and reputation of successful cultivation will pay ten times the trouble. The variety was the Louise Bon de Jersey.—*New England Farmer.*

Hon. MARSHALL P. WILDER.—This distinguished Horticulturist and Pomologist has recently been elected President of the Massachusetts Senate, and we are sure he will do honor to that honorable office. We wish tnat more of our Senators and Representatives in the State and National Legislatures were such as he, if they were, we would soon see our Government do something worthy of it, for Agriculture and Horticulture. State and National Gardens would be more then *talked of.*

WINTER is the best time to look around your orchard and garden to see how matters stand—do what you can, and lay out your work for the spring.

PRUNING THE PEACH TREE.

Downing's "Fruit and Fruit Trees of America" was the first American work treating of the culture of fruit trees, that awoke any considerable degree of attention to the pruning of the peach. The *shortening in* system so long and so successfully practiced in France, and indeed in all other European countries where the peach is cultivated well, was explained and strongly commended to the attention of American cultivators. Since that work first made its appearance five years have elapsed, and no doubt many have by its influence adopted or carried into practice, to some extent, this system; for every now and again we see in the Horticultural journals, accounts of its beneficial results. Still the culture of the peach tree through the country generally is exceedingly defective, and stands in greater need of reform than does any other branch of tree culture. But the active and penetrating spirit that now exists can hardly fail to seize upon this neglected point, and give it proper attention. We have now before us several requests for information in regard to it, and we take this occasion, (the pruning season being at hand,) to present a few remarks on the subject. Thomas' "American Fruit Culturist" being referred to by some of our correspondents, we will quote the article in that work as a *text:*

"No fruit trees need a more regular and constant pruning than the peach, and none more frequently meets with total neglect. The young shoots, to live and flourish, need a very full exposure to sun and air. But young peach trees, if left to grow in their own way, become covered with a dense profusion of leaves. These shade the interior, and as a necessary consequence, the central shoots gradually perish, and leave the bare limbs. As the tree advances in growth, these become long, naked branches—with tufts of leaves only at their extreme ends, (fig. 1.)—These extremities are loaded with an overcrop of fruit, diminished in flavor by crowding, and often breaking the peach tree under their lever-like weight.—Trees wholly neglected in pruning, usually become by this process, of little value, after the lapse of some years.

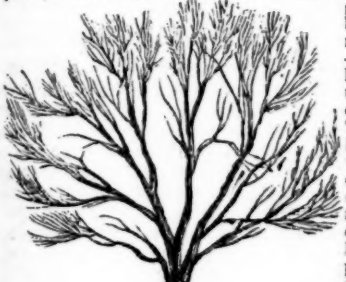


Fig. 1.

To avoid this unfavorable result, the *shortening-in* mode of pruning has been very successfully adopted, which consists in yearly cutting back the extremities, so as to counteract the spread of the limbs, and to lessen the weight of foliage.

The most easy, uniform, and certain rule to follow, in adopting this system of pruning, is to cut off, early in spring or in winter, one-third to one-half of all the shoots of the previous summer's growth. This thins the crop of fruit, and greatly reduces the amount of leaves; and while the fruit is lessened in number, the amount is not diminished, and the flavor is immensurably improved. If this pruning is regularly and annually performed, the head of the tree will be preserved in an even, handsome, and compact shape, (fig. 2,) and in a healthy and vigorous condition; and it will become rarely necessary to shorten and thin out the limbs by cutting back the larger side-branches.

Fig. 2.

The pruning may be performed with a hedge or long-handled shears, or with nearly equal convenience by means of a light standing ladder and a common pruning knife.

Any cultivator who may doubt the value of shortening-in the peach, need only to try the experiment for a few successive years, on a tree standing side by side with one unpruned, to become fully convinced of its eminent advantages."

Now we consider it very important that cultivators who prune their peach trees should have a correct idea of the evil or defect, that their pruning is intended to remedy. The inexperienced would be very likely after reading the article we have quoted to attribute it to "*dense profusion of leaves*," and as a consequence, would endeavor to reduce their quantity; but we consider this a misapprehension, for the actual result of pruning or *shortening-in*, is to maintain a profusion of leaves, by keeping all parts of the tree furnished with young growing and bearing shoots. Without pruning, the trees become denuded of young shoots and foliage on all but the extreme ends of the branches.

We conceive the true cause to be the great tendency of the sap in the peach tree, (a tendency to be observed in all trees, but particularly so in the peach,) to ascend to the points of the last year's shoots. Here the buds are most active, and the sap passes by all the lower and less fully developed buds to them, leaving the others to die off gradually for want of support. Thus the tree goes on year after year, when left to itself, the upper buds only, of the last year's shoots, being developed into new shoots, until all the leaves and fruit of the tree are confined to a few inches of the ends of the branches.

If any proof were wanted that a profusion of leaves is not the cause, we need only refer to the case of espalier peach trees, trained on a wall or trellis, where every portion of the tree is fully exposed to the light, and where shading of leaves is entirely out of the question. These, just as much as the common standard tree, become bare on the lower parts if not pruned, although their confined situation does not offer such great facilities for the flow of the sap. We have seen neglected espalier peach trees, covering 20 or 30 feet of a wall, and not over a foot on the end of each branch bearing leaves or fruit. It was not the shade of foliage but the uninterrupted flow of sap to the points. But if we take a young peach tree 2 years old and transplant it, leaving all its branches on, and although these are so few that they cannot possibly produce leaves enough to be any detriment to the interior or lower branches, still we see the buds on the extremities of the limbs alone grow and those below them perish.

Having thus considered the cause of the evil we complain of, the remedy becomes quite obvious, and with ordinary judgment may be applied with correctness and success.

Every one who has planted a young peach tree, say one year from the bud, must have observed that if the top buds are sound and healthy, they will grow while all the lower ones on the branches, if any, or on the stem, will die out, but if the tree or the branches are cut off, even to the lowest bud at the base, it will grow. We see the same results when the top buds are winter killed or the top is broken off; the buds that would otherwise have remained dor-

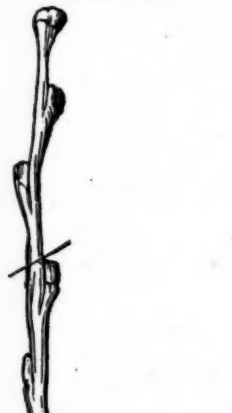


Fig. 3.

Fig. 4.

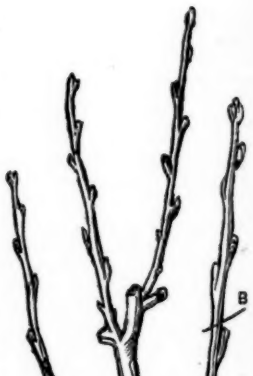


Fig. 5.

mant by the sap passing them to those at the summit, are made to develope themselves into shoots or branches. Hence it is that we apply *shortening-in.*

Let us take a young last year's shoot of the peach, (fig. 3,) furnished with both fruit and wood buds, for illustration. Now if this shoot is left entire, the buds at the point only will produce shoots, and all the rest will be a naked space. But we cut at the cross line, and thus induce the wood buds on the lower parts to develope and make young, vigorous shoots for next season, and at the same time we reduce the quantity of fruit, which is quite essential, not only to the health of the tree, but the perfection of the crop. It is on the same principle that a gardener, by repeatedly pinching off the ends of young shoots, will grow a geranium into a low bushy mass of branches and leaves, covering entirely the pot in which it grows, while if left to itself the same plant would have most likely formed a tall, branchless, weak, straggling plant, requiring the support of a stake. It is on the same principle too, of directing the sap from one channel into another by pruning and training, that we are enabled to make pyramidal pear trees, and to produce all the other forms that necessity or fancy has suggested. If the sap had not been thrown into the wood buds at the base of the shoot, (fig. 3,) we should have had a production the following year like fig. 4; but by *shortening-in* we produce something like fig. 5. Now the difference between cutting back a shoot and leaving it uncut makes just the difference we see between these two figures.

But *shortening-in* is not all that is required. If we continue to shorten the young shoots without cutting out some of the old, we will get a tree by and by like a brush that the light can not penetrate. In such productions as figure 5, the old shoot A, should be cut out at the cross line at the base, and we have the shoots B. and C., for next year's bearing, which are *shortened-in.** Then any of the main branches that take the lead of the other should be shortened, in order to maintain symmetry in the form of the head.

Mr. Thomas says: "The most easy, uniform and certain rule to follow, is to cut off, early in spring or winter, one-third to one-half of all the shoots of the previous summer's growth." This is not to be taken literally. He means of course that each of last year's shoots is to be cut back one-half to one-third its length. In the main this may be right, but some discrimination must be used. Vigorous shoots might be cut back one-third, while a weak, slender one, if placed where we want a good bearing shoot for next year, should be cut back to within a couple of buds of its base, so in proportion with branches of intermediate vigor. The cut should always be made at a wood bud or a triple bud, one of which is a wood bud. In this and similar latitudes, the latter end of February and beginning of March is the best time.

* It should be borne in mind that the Peach bears only on wood of the previous season's growth; and the same shoot only bears once, hence all the parts of the tree that become destitute of young wood, become at the same time barren.

Amalgamation.—A Texas paper tells a story of a man who by engrafting the black on the white grape succeeded in making "black, white and speckled," grow on the same *bunch.*

"PEAR BLIGHT."

As it was from my own experience that I wrote of "Pear Blight," I have been not a little curious to see how trees in other regions were effected. At Buffalo, in Bryant's Nursery, numerous Pear trees are growing, which have been suffered to remain 30 years, without any digging round them, which stand embargoed in turf, that have not been affected at all by "blight." At Batavia and Canandaigua, as well as at Rochester, there are many old trees, which have a slow but sure growth, treated as I proposed, and free of blight. "F. P. R.'s," of Sweden, have done pretty well, as he says, for 25 years, without blighting. I have but one word to say about the Pear tree and blight. I believe that if trees were planted on dry and good soil, and suffered to remain without other culture than a dressing of leached ashes, or bone dust, in the fall, that they will not blight. Mind and cover the roots well, and if the turf grows around them, do not disturb it, whatever the "Young Digger" says to the contrary. Let me extract from Mr. Downing's Book on Fruits, about the Pear tree.

First—he mentions Pear trees, "known as now living near 400 years; and some bearing 120 bushels a year;"—and says, "that the Pear succeeds so well as an open standard and requires so little care and pruning; less indeed in the latter respect than any other fruit tree that training is seldom thought of, except in gardens of the curious or skilful. Pear trees in a bearing state, where the growth is no longer luxuriant, should have every autumn a moderate top dressing of manure to keep them in good condition." (Had F. P. R. done this, perhaps he would not have had his trees *blight.)* "This, as it promotes *steady* and *regular growth*, is far preferable to occasional heavy manuring, which, as will be presently shown, has a tendency to induce the worst form of blight to which the tree is subject."

"The most successful remedies for this disastrous blight, as is evident, are chiefly *preventive ones.* The principal means of escaping the danger really lies in always studiously avoiding a damp soil for the fruit tree."

"A rich, dry soil, is, on the whole, the best, because there the tree will make a good growth in time to fully ripen its wood and will not likely make a second growth."

"It is in accordance with this that many persons have remarked that those Pear trees growing in common meadow land, were free from blight in seasons when those in rich garden soils were continually suffering from it."

Throughout, Mr. Downing recommends slow growth —dwarfing, to ensure it.—J. H. Watts.

DWARF STOCKS—INQUIRIES

Mr. Barry—*Dear Sir:* I wish to make some inquiries through your valuable paper, respecting *stocks* for dwarfing trees. The utility of Dwarf Fruit Trees is every day becoming more and more evident, not only for the amateur, but for those whose circumstances do not permit their owning much land, who can, if they have the taste, enjoy the production of some of the finest varieties of fruit in the narrow limits of a garden. And the taste will not be slow of formation when it is found that a few delicious pears can be grown on the same ground occupied by a sour currant or worthless gooseberry; in short it is doing for pomology what cheap publications are for literature — widely disseminating valuable things at small expense. The very successful dwarfing of the Pear, and more recently of the Apple and Cherry, leaves a deficiency of the Plum, Apricot and Peach, which it is desirable to see supplied. The necessity of dwarfing the latter does not seem to exist, yet how pleasing to the eye of any lover of beauty would be the sight of a mere shrub bending beneath clusters of the Red Rareripe or Melocoton. But the Plum and Apricot might more readily, as dwarfs, be protected from the curculio, their worst enemy in many parts, by which a great advantage would be gained. I have long wished to find a fitting dwarf for the plum, and was much pleased by the intelligence recently communicated by Mr. Rivers, that he had succeeded by employing the English Sloe or Blackthorn. This shrub, I presume, is not found in this country, but would it be likely to flourish on our soils? And is it reasonable to suppose that if the plum grows upon it, the Apricot and Peach would be likely to take? Is it known whether our native wild Plum, upon which the improved kinds grow readily, and vigorously the first year, proves a dwarf or not? Native stocks seem better adapted to the soil and climate, where they are found growing, than those brought from a distance, and it is not improbable that among our many wild fruit trees, some might be found valuable for dwarfing upon. For instance, the American Crab is said to furnish a good stock for the Apple. Has it been satisfactorily tested? Has the Service Tree, *(Pyrus Terminalis,)* ever been tried as a stock for the Apple, to which genus it belongs? Again, among our many varieties of Wild Cherry, is there none that will make a good stock for the improved sorts? The common Choke-Cherry is a dwarf, but grafts upon it, though taking readily, prove so short-lived that they seldom exist through the first season.

Should the Sloe of Mr. Rivers prove valuable, as I hope it will, I trust our nurserymen will not be tardy in importing it. J. Fraser.—*Mecklenburg, Tomp. Co., N. Y., Dec.*, 1849.

The Apricot and the Peach may both be dwarfed on Plum stocks, and perhaps some of our native species would answer that purpose well, whether on a Peach or Plum stock, the tree to be kept in a low and compact bushy form, will require to branch near the ground, and be regularly shortened in every year. We apprehend the *Sloe*, besides being difficult to work upon, will not make trees of much value; but as we have no such experience, we may be in error. It is certainly worthy of a trial.

ACKNOWLEDGEMENTS.

We are indebted to R. G. Pardee, Esq., of Palmyra, N. Y., for a box of the finest *Catawba Grapes*, now (January,) as fresh as when gathered; also for a paper of *Waite's Queen of Dwarf Peas.* "They are very productive and curious, as they grow only 12 to 15 inches high, but very stout, with heavy dark foliage." We know these to be an excellent *Dwarf Pea.* Also, a couple of ears of a very early and excellent sweet corn, supposed to be the *Early Burlington.*

To M. A. Norton, Esq., of Victor, for a box of a new apple, *Norton's Purple*, which promises to be excellent, the specimens were too ripe before reaching us, but we hope to see it in perfection next season.

Ladies' Department.

JANE AND JOHN, OF FARMERSVILLE.

BY JAMES MAPLETON.

JANE GROVE was a pretty girl, or at least, most of the young folks used to think so in Farmersville, where she was "born and brought up;" with the exception of a jealous rival or two, who would acknowledge the fact with a *but*. Jane, however, unlike many *pretty* girls, was a girl of *pretty* good sense. She was not spoiled by flattery, yet it was nothing but her good sense that prevented it.

JANE had many admirers among the young men of the neighborhood, though all, for some cause or other, seemed to be kept at rather a respectful distance — too much so, for the liking of some of them it was very currently reported, I recollect at the time, not to mention some little experience I had on the subject.

At last, by some unforseen and altogether unaccountable circumstance or other, JOHN ELMLY seemed to get the start of all the rest. He came out clear ahead, and no one even thought that he was trying at all. JOHN was only a farmer's son. He was working a small farm — some thought he rented it, others that he worked it on shares, and still others, that he had bought it — though the prospect was that he never would pay for it. However, we all concluded that he had no ambition above raising corn and popatoes, while the rest of us where aiming to become clerks and merchants, and lawyers and statesmen. We unanimously acknowledged that JOHN was a pretty good sort of a boy, and nobody's fool at that. And after a while we made up our minds that the only reason JOHN was more successful than the rest of us, was that none of the rest of us had ever *tried*.

The old maxim that "the course of true love never runs smooth," did not prove true in this case, for before we expected it, or before any of the rest of us could have "raised the wind" to build a decent hen-coop, JOHN had a nice little cottage built, and him and JANE were declared "*one*." None of us exactly liked his taste in building his cottage,— though we thought it good enough,— and strangers expressed their delight at its neat and pretty appearance.

JANE no sooner got "at home" in the cottage than she commenced her work. Every day she might be seen early in the morning, and in the evening, in her garden — making flower beds, and planting seed. She did n't stand with her gloves on, and direct a gardener, but went at it herself, with the spade and the hoe. To-be-sure, JOHN did the hardest of the work, but JANE was the gardener.

"That is just as I expected — I knew he would make a slave of her"— said one. "He will have her out in the field digging potatoes soon," said another.

But, JANE's sparkling eyes, that had smitten us in other days, spoke of any thing but slavery — her rosy cheek and joyous laugh, told not of unwilling toil.

"She will soon be burned as brown as a squaw," said Miss SPRUCE, who could n't go into a room with the curtains up, without a sun-bonnet on.

Though JANE might be a little tanned, yet it was far better than that sallow, billious look, that calls for the frequent application of chalks and powders.

"I should like to know what kind of a housekeeper she is," said Miss JEALOUS. "I guess she isn't very neat — she spends too much of her time out doors, to keep things tidy in the house."

It is true JANE was n't so very neat as to make her husband pull off his boots and leave them under the fence as soon as he comes in sight of the house, but the old ladies who called on JANE said she was an "excellent house-keeper, and she and her cottage was a pattern for all the young folks of the place."

"Well, I do n't believe," said Miss SNIFFLIN, "that she ever cooks any thing. She spends so much of her time fixing posies, and pulling up weeds, that I guess there is rather poor fare at the cottage. She never was much of a cook."

But I can assert from experience that a dinner at the cottage was no fast; for, after I got reconciled to the matter a little, I often called, and had good reason to know. Indeed, the elderly ladies of the place often took tea with JANE, and I have it on their authority, that JANE made "a good cup of tea," and always had "two kinds of cake on the table"— which I believe is considered the *ne plus ultra*.

But these stories soon began to prove old,— envy and jealousy wore itself out — and now I believe it is acknowledged that JOHN has the prettiest wife — JANE the best husband — and both together, the best farm, the neatest garden, the prettiest cottage, and the prettiest children in all Farmersville.

LET ladies avoid the young man who does not behave with respect and honor towards his mother, and who is not courteous and kind to his own sisters.

OUR HOMESTEAD.

Our old brown homestead reared its walls,
From the wayside dust aloof,
Where the apple boughs could almost cast
Their fruitage on its roof:
And the cherry-tree so near it grew,
That when awake I've lain,
In the lonesome nights I've heard the limbs,
As they creaked against the pane:
And those orchard trees, oh, those orchard trees!
I've seen my little brothers rocked
In their tops by the summer breeze.

The sweet-brier under the window sill,
Which the early birds made glad,
And the damask rose by the garden fence,
Were all the flowers we had.
I've looked at many a flower since then,
Exotics rich and rare,
That to other eyes were lovelier,
But not to me so fair:
For those roses bright, oh, those roses bright!
I have twined them with my sister's locks,
That are laid in the dust from sight!

We had a well, a deep old well,
Where the spring was never dry,
And the cool drops down from the mossy stones
Were falling constantly:
And there never was water half so sweet
As that in my little cup,
Drawn up to the curb by the rude old sweep,
Which my father's hand set up;
And that deep old well, oh, that deep old well!
I remember yet the plashing sound
Of the bucket as it fell.

Our homestead had an ample hearth,
Where at night we loved to meet;
There my mother's voice was always sweet;
And there I've sat on my fathers's knee,
And watched his thoughtful brow,
With my childish hand in his raven hair—
That hair is silver now!
But that broad hearth's light, oh, that broad hearth's light!
And my father's look, and my mother's smile,
They are in my heart to-night.

Youths' Department.

AGRICULTURE.

AGRICULTURE is the art of cultivating the soil. It is the aim of all men to make their business, no matter what it may be, as profitable as they can. The object of the farmer in cultivating the soil is to raise the *largest crop* at the *smallest cost*. When the merchant, or speculator, or lawyer, increases his profits, it is often done at his neighbor's expense. But the farmer may increase his profits, and not only himself, but his neighbors, and his country be the better for it.

The farmer should not only aim to make large profits *for the present*, but this should be done *without injuring his land*. You would not think a carpenter made much of a speculation who had spoiled a set of tools worth $50 in making a barn-door, although perhaps he made the door very quick, and got twice what the job was worth. The banker who boasted of the large interest his money yielded, while at the same time his capital was continually depreciating, would be considered a strange financier. A man would be thought a downright idiot who would work his team extremely hard, without giving them sufficient food,— for the purpose of getting a week or two of profitable labor from them — until they became useless from over-work and poor fare. He would lose more in the injury done his team than the entire value of their labor. The wisest plan would be to find out what kind of work, and how much the team could endure, without injury, how much food, and what kind was necessary to keep them in a good working condition, and act accordingly. The farmer shows as little sense, who, just to raise a crop or two, without much cost or labor, injures his land as much or more than the value of the crops raised. He should find out what his land is best suited for, and what *food* it will furnish his crop, and what is the best course to keep it in a "*good working condition.*" To do this he must know something of the nature of the crops he raises, of the land on which they grow, and of the manure or food of plants which he appiies to the land. A man who makes up his mind to build a house or a barn, will first examine the materials he has on hand, (if he has any,) and procure those suitable for the building which he intends to erect. Why should the farmer act less wisely when he undertakes to make a crop of wheat, or oats, or potatoes. We shall attempt to give the YOUTH a little light on the subject.

1st — OF THE NATURE OF CROPS.— All vegetable substances consist of two parts, called the *organic*, and the other the *inorganic*. You have often seen a pile of wood, perhaps a log-heap, set on fire and burned. The *wood* was very heavy, but the greater part is burned away, and the *ash* that is left is light. The greater part which burns away is the *organic* part, and the small part that remains — the ash — the *inorganic* part. A stick of wood so heavy as to require a strong man to lift it, could be carried by a school-boy in his sachel after the *organic* part is burnt away. The *organic* part is more than *nine* pounds out of every *ten*.

Perhaps some of our young readers are ready to inquire by this time "*what that organic part is that burns away?*" The *organic* part of plants consists of *carbon, hydrogen, oxogen* and *nitrogen*. *Carbon* is a solid substance, wood-charcoal, black-lead, and the diamond, are varieties of carbon.

Hydrogen is a gas or air, and the lightest of all known substances. It burns in the air, but in it a candle will not burn, nor an animal live. You can make this gas by putting some iron filings in a tumbler, and pouring over them a small quantity of sulphuric acid, diluted with twice its bulk of water, and covering the glass for a few minutes. This is the gas with which baloons are filled.

Oxygen is also a kind of air, generally called gas. It is heavier than hydrogen, indeed, it is heavier than the air we breathe. It forms one-fifth of common air. A candle will burn in it with great brilliancy. The properties of oxygen may be shown in the following manner: take equal parts of oxide of copper and chlorate of potash, and rub them together in a mortar, then put the mixture into a common oil flask, and place it over a lamp, as seen in the figure, (fig. 1,) when a piece of charcoal or sulphur introduced at the end of a wire will burn brilliantly.

Fig. 1.

Nitrogen is also a kind of air differing from the other two. It will not burn, and a lighted taper will not burn in it. It is a little lighter than common air, of which it forms four-fifths of the bulk. The easiest method of obtaining this gas is by mixing together a quantity of sal ammonia with half its weight of salt-petre, both in fine powder, and heating them in a retort over a lamp. The gas is collected over water, as shown in figure 2.

All of these four elementary bodies, are not, however, found in all vegetable substances. The greater number contain only *oxygen, hydrogen* and *carbon*. Starch, sugar, the fibre of wood, fats, and many other substances contain no nitrogen.

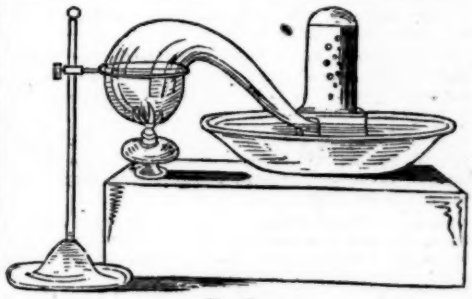


Fig. 2.

In our next number we shall speak of the *inorganic* part of plants.

A WORD TO BOYS.—Some one has said:—"Boys, did you ever think that this great world, with all its wealth and woe, with all its mines and mountains, its oceans, seas and rivers, with all its shipping, its steamboats, railroads, and magnetic telegraphs, with all its millions of men, and all the science and progress of ages, will soon be given over to the hands of the boys of the present age — boys — like you assembled in school-rooms, or playing without them, on both sides the Atlantic? Believe it, and look abroad upon your inheritance, and get ready to enter upon its possession."

Editor's Table.

THE GENESEE FARMER commenced the year with the most flattering prospects, and thus far our anticipations are more than realized. The old subscribers are fast renewing their subscriptions, and we are receiving thousands of new subscribers from places where the Farmer never before circulated. Our friends who are exerting themselves to extend our circulation will accept our thanks—more than this, our pledge to spare neither labor or means to make the Farmer—a welcome and valuable monthly visitor—the FIRST—the BEST.

LIFE SUBSCRIBERS.—We have received many letters asking us to consider the writers life subscribers for the Farmer. May it be long before Death shall erase their names from our books, and deprive the world of the benefit of their influence and example. BENJ. HODGE, of Buffalo, writes: "I cannot afford to lose a single number of your paper, and you may consider me a subscriber for life."

ONE WAY TO DO IT.—We received a letter from a friend, a short time since, giving an account of the formation of an "*Agricultural, Horticultural, and Mechanical Association,*" in a certain town in this State. The writer says; "By our *Constitution*, the necessary qualification for a person to become a member for *one year*, is to pay the club price of *three shillings*, and receive and read the *Genesee Farmer* for 1850."

YOUNG FARMERS.—The youth are beginning to turn their attention to agriculture, with their characteristic spirit and enthusiasm. We should be pleased to publish some of the letters we have received from our young friends during the past month, but space forbids. One in Chautauque Co., N. Y., 14 years of age, writes us that his father is a lawyer, but has consented that he should be a farmer. He forwarded his subscription to the Farmer for two years. We hope he has received, and will study carefully, the book we sent him. It will lay the right foundation for scientific and successful farming. We refer all such to our YOUTH'S DEPARTMENT.

OUR CORRESPONDENTS must bear with us a little, if they do not receive that attention to which they are entitled as early as could be wished. We are in the daily receipt of from forty to fifty letters, some of them requiring written answers; and many asking information as to the price of stock, &c., to obtain which, we have to write to those having them in their possession, which in some cases causes considerable delay. We shall do all justice, and as speedily as possible.

GLASS WATER PIPE.—Many object to the use of lead pipes as conductors of water, from the impurities they impart to the water. W. T. DE GOYLER, of Schenectady, has invented a *glass pipe*, which is highly spoken of where used. It has been in use over one year at Union College, Schenectady. RAPALJE & BRIGGS, of the Genesee Seed Store, in this city, are the exclusive agents for the counties of Ontario, Livingston, Monroe, Genesee, Erie, Wayne and Orleans, in this State.

CAULIFLOWER IN WINTER.—We were presented by J. P. FOGG, Esq., of this city, with a beautiful head of Cauliflower for our New-Year's dinner. Mr. F. took from his garden about one hundred that had not headed, and placed them in his cellar, where they headed beautifully. By this means a good supply of this delicious vegetable can be obtained for winter use. Though this plan is not new to experienced gardeners, we presume it will be new and valuable to many of our readers.

CANADA THISTLES.—We have a host of communications on the best means of destroying the Canada Thistle. We shall attend to them in our next. We think the thistles may consider themselves "used up."

WE are indebted to WM. P. FOGG, of the Patent Office, Washington, for valuable translations from the foreign Agricultural Journals. These translations will be a valuable feature in our paper the present year.

B. P. JOHNSON, ESQ., of Albany, will accept our thanks for a most beautiful pamphlet copy of JOHNSTON'S address, at the late State Fair.

WAGENER APPLE.—It will be seen by Mr. WATTS' advertisement that he has scions of this celebrated apple for sale.

POSTAGE OF THE FARMER.—The Farmer is subject to *newspaper postage* only. A few postmasters, particularly at the West, have occasionally given our subscribers trouble, by attempting to collect the same rates of postage as on pamphlets. To save our friends any further annoyance, and set the matter forever at rest, we have taken the pains to lay the subject before the Post Office Department. The following is the very satisfactory decision.

POST OFFICE DEPARTMENT,
Appointment Office, Dec. 13, 1849.

SIR:—In reply to your's of this date, I have to inform you that the "Genesee Farmer" published at Rochester, New York, is regarded as a newspaper, and should be rated with one cent postage when carried in the mails over one hundred miles, or any distance within the State; and if carried over one hundred miles, and out of the State in which they are mailed, one and a half cents postage.

I have the honor to be, Very respectfully &c.,
FITZ HENRY WARREN,
Second Assistant Post Master General.

DR. DANIEL LEE, Washington, D. C.

STATE AGRICULTURAL SOCIETY.—The following are the Officers appointed for the ensuing year, at the annual meeting, held on the 17th inst., at Albany:

President.—E. P. PRENTICE, Albany.
Vice Presidents.—Ambrose Stevens, N. York; Lewis G. Morris, Westchester; Anthony Van Bergen, Greene; Z. C. Platt, Clinton; J. B. Burnett, Onondaga; E. C. Frost, Chemung; Oliver Phelps, Ontario; Nelson Van Ness, Chautauque.
Cor. Secretary.—B. P. Johnson.
Rec. Secretary.—J. McD. McIntyre.
Treasurer.—Luther Tucker.
Executive Committee.—B. B. Kirtland, J. J. Viele, H. Wendell, A. Thompson, Henry Wager.

The next Fair is to be held at Albany. The Society unanimously adopted a resolution, requesting Congress to establish a National Agricultural Bureau.

BURRITT'S CHRISTIAN CITIZEN.—We refer our readers to the advertisement of this paper. Mr. BURRITT, the learned blacksmith, is too well and too favorably known to need our praise. He has given up making horse shoes, and is endeavoring to forge "swords into plow shares, and spears into pruning hooks." May success attend his benevolent labors until the arts of civilization shall supplant the barbarous arts of other days—peace and plenty make the hearts of millions rejoice—man no longer oppress his brother man—and the "nations learn war no more."

HOLDEN'S DOLLAR MAGAZINE.—We are indebted to the Agent of this city, D. M. DEWEY, for the January number of this valuable monthly. It contains an interesting story of the life and death of CHARLES W. HOLDEN, the late proprietor and the projector of the Magazine—a beautiful tribute to his memory. The portrait accompanying the sketch is a very fair likeness. Mr. H. left New York for California on the 17th of January, and died on the 30th of June. Like many others, who left their friends and homes with high anticipations and golden dreams, he breathed his last under the shade of a tree, on the shores of the Sacramento.

NEW PAPERS.—*Moore's Rural New Yorker* is a neat and valuable weekly paper just commenced in this city, devoted to Agriculture, Horticulture, the Mechanic Arts, Education, &c., by D. D. T. MOORE.

The *Family Visitor*, of Cleveland, Ohio, is another new weekly. The principal editor is Prof. J. P. KIRTLAND, one of the most scientific men, and perhaps the best Horticulturist of the West.

THE AGRICULTURAL PRESS.—The *Albany Cultivator* for January comes to us with its usual amount of valuable matter. Accompanying it is a *pictorial number*, interesting at least to the juveniles.

The Plough, the Loom, and the Anvil, by the veteran SKINNER, bids fair to sustain and increase its high reputation.

The *American Agriculturist*, the *Prairie Farmer*, the *American Farmer*, the *Wisconsin Farmer*, the *New England Farmer*, and the other Agricultural monthlies have been received. We wish them the success they merit.

Mr. T. B. GARRS, of Mayville, Chautauque County, N. Y., sends us an account of a native Cow, that was dried off in June last and fatted on grass exclusively, and slaughtered on the 10th of December, 1849. The neat weight of which was, beef, hide, and tallow 863 lbs., and divides, beef 628, hide 70, and tallow, tried and refined, 165. Considering the light weight of beef with the heavy weight of tallow, we think it cannot be beaten.

THE LAST HOURS OF REV. HENRY COLMAN.—We have been told within a day or so, that the late Mr. Colman, after having visited Ireland, on his second trip to Europe, only had strength left him to reach Islington, England, where he died. He had been charged with a private embassy to facilitate emigration from Ireland of the better class of her citizens, who might wish to settle on our shores, and there contracted a fever called the ship or typhus fever, which terminated his life. His reason left him, but his mind seemed exercised in deep commiseration for the *poor Irish* whom he had but just left in their misery. Those who knew the late Mr. C., either personally or as a profound writer upon agriculture, and as one of the warmest friends of the farmer, will hold his memory dear. Mr. C. edited the Genesee Farmer for several years, and was an occasional contributor since 1832. He dissolved his connection with the Farmer to enter on his European Tour.

FLYING.— It does seem as if man would never rest satisfied while any thing remained unaccomplished. He traverses the seas with almost the same certainty and safety as he does the land, crossing the Atlantic, and arriving at the destined port within an hour or two of the appointed time. He travels from Country to Country, and from State to State with little short of lightning speed, and is carried a hundred miles in less time than a few years ago he went ten. He sends his messages from one end of the Union to the other with the rapidity of thought. and yet he is unsatisfied—something yet remains undone. He cannot yet rival the Eagle in her flight to the skies. But he is on her track. The screeching of the steam whistle may yet warn the Eagle to "*look out for the Engine.*" The Scientific American describes a machine now building in New York by a Mr. PENNINGTON.

INDUSTRIAL SHOW OF NATIONS.—At the suggestion of PRINCE ALBERT, who is doing much for the cause of improvement in England, and the exhibition of whose fine stock we have before noticed, and under the patronage of his "better half," a grand exhibition of the industrial products of all nations is to be held in London, in 1851. The exhibition will probably be the most splendid affair of the kind ever witnessed in the world. It is proposed to raise £100,000 for the general expenses. The prizes are to be one money purse of £2,000, four of £1,000 each, and several costly medals, which are to be conferred by the Queen in person.

CLOVER AND TIMOTHY SEED.—Large lots of Clover Seed are purchased in Ohio, and come down the Lake in the fall, and we understand some five or six thousand bushels are now held in Rochester and this vicinity. The crop in this and the adjoining Counties was fair. Prices must necessarily be nearly, if not quite as low as last year; say from $4 to $5. This market is mostly supplied with *Timothy Seed* from Canada. The market is very quiet, and will probably remain so, until the opening of Lake navigation. Prices range from $1 25 to $2 25, according to quality.

OUR friend, A. HUIDEKOPER, Esq., Meadville, PA., remits payment for ten copies of the Farmer, and adds—

"Our harvests during the past year were abundant in every thing but fruit. The spring promised well, but much of the fruit subsequently dropped off and that which matured was less fair, and not equal in size to its usual growth. It is also said not to keep so well this winter as in former years. The Belmot or Gate apple has begun to bear with us in this region, for a couple of seasons, and seems to sustain the reputation which DOWNING and Dr. KIRTLAND give it of being one of the best of all the early winter apples."

A SMALL FARM IN THE SOUTH WANTED.—One of our constant readers, who is "a poor man with a large family," wishes to get a small farm cheap in the northern or western part of Virginia. We should like to have this poor man, wee regularly pays his four shillings for the Farmer, locate in some neighborhood where the *rich* farmers and planters are too *poor* to take an agricultural paper, and too *ignorant* to feel the want of one. The following tells its own story:

SIR: Will you allow me the privilege, of enquiring of some of your readers. If it is probable I could get a few acres, say from 10 to 16; 3 to 5 acres cleared. the rest in wood; at the price of from $3 to $5 per acre, on a public road, (not a cross-road.) I want to get it, if I can, in the northern or western part of Virginia; or somewhere on the Alleghany river, or some 20 or 30 miles from Wheeling, on the Ohio. If some one of your intelligent readers or correspondents can give me any idea where I can get what I have mentioned, they and you, sir, will be doing a great service to a poor man with a large family, who is looking out for a small independent home.

I am, Sir. your obedient servant, and constant reader,
Rochester, Jan'y 17, 1850. G. C.

SWEET POTATOES.—We have received several letters asking where sweet potatoes for seed can be obtained early enough for planting in this section. J. P. FOGG, of the Rochester Seed Store, will furnish them the coming spring to all who wish. Orders may be sent to our office.

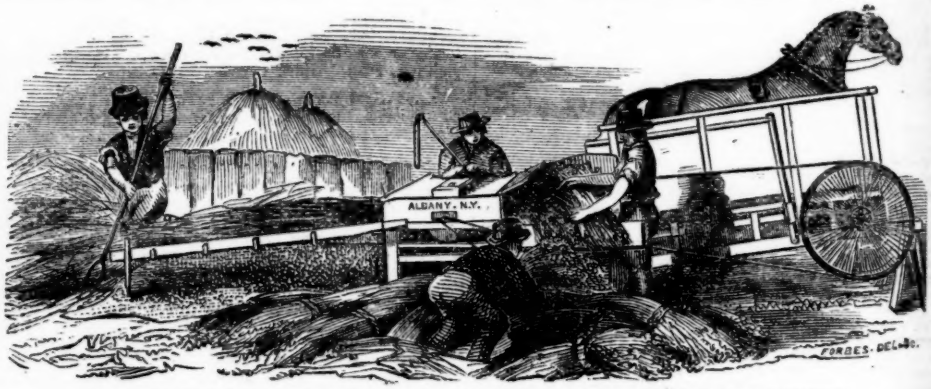
GRAND BANQUET TO THE POTATO.—That highly respected vegetable, the Potato, being now, it is hoped throughly re-established in health, it was determined by a few leading members of the Vegetable Kingdom to offer a banquet to the worthy and convalescent root on his happy recovery. The arrangements for the dinner were on a scale of great liberality, and the guests included all the principal vegetables. The invitations had been carried out by an efficient corps of Scarlet Runners, and the Onion occupied the chair. He was supported on his right by the head of the Asparagus family, while Salad occupied a bowl at the other end of the table, and was dressed in his usual manner. The Potato, though just out of his bed, was looking remarkably well, and wore his jacket, there being nothing to mark his recent illness, except perhaps a little apparent blackness round one of his eyes. After the cloth had been removed—

The Onion got up to propose a toast, "the Potato, their much respected guest," (Immense cheering.) He, the Onion, has known the Potato from infancy; and though they had not always been associated in life, they had frequently met at the same table. They had sometimes braved together the same broils, and had found themselves often together in such a stew (he alluded to the Irish stew) as had brought them, for the time being, into an alliance of the very closest kind. He the Onion, was delighted to see the Potato restored to his place in society, for he, the Onion, could say, without flattery, that society had endeavored to supply the place of the Potato in vain. (Hear, hear.) They had heard of Rice having been suggested to take the place of his honorable friend, but the suggestion was really ridiculous. *Rixum teneatis, amici*, was all that he, the Onion, had to say to that. (Loud laughter, in which all but the Melon joined.) He the Onion, would not detain them longer, but would conclude by proposing health, long life, and prosperity to the Potato.

The toast was received with enthusiasm by all but the Cucumber: whose coolness seemed to excite disgust among his brother vegetables. The Onion had, in fact, affected many of those present to tears, and the Celery, who sat next to the Horseradish, hung down his head in an agony of sensibility. When the cheering had partially subsided, the Potato rose, but that was only a signal for renewed enthusiasm; and it was some minutes before silence was restored. At length the Potato proceeded nearly as follows;

"Friends and fellow-vegetables—It is with difficulty I express the feeling with which I have come here to-day. Having suffered for the last three or four years from a grievous disease which seemed to threaten me with total dissolution, it is with intense satisfaction I find myself once more among you in the vigor of health. (Cheers.) I should be indeed insensible to kindness were I to forget the anxious inquiries that have been made as to my state of health by those who have held me in esteem, and sometimes in a steam. (A laugh, in which all but the Melon joined.) I cannot boast of a long line of ancestors. I did not, like some of you come in with the Conqueror, but I came in the train of civilization, amidst the memorable luggage of Sir Walter Raleigh, in company with my right honorable friend the Tobacco, who is not now present, but who often helps the philosopher to take a bird's eye view of some of the finest subjects of reflection. (Immense cheering, and a nod of ascent from Turnip Top.) Though I may be a foriegner, I may justly say that I have taken root in the soil, and, though I may not have the grace of the Cucumber, who seemes to have come here in no enviable frame. (Loud cheers.) I believe I have done as much good as any living vegetable; for though almost always at the rich man's table, I am seldom absent from the poor man's humble board." (Loud applause.) "But," continued the Potato, "let me not get flowery, or mealy-mouthed, for there is something objectionable in each extreme. I have undergone many vicissitudes in the course of my existence. I have been served up, aye, and served out (a smile) in all sorts of ways. I have been roasted by some; I have been basted by others; and I have had my jacket rudely torn off my back by many who knew not the treatment I deserved. But this meeting my friends, repays me for all. Excuse me if my eyes are watery. (Sensation.) I am not very thin-skinned; but I feel deeply penetrated by your kindness this day."

The Potato resumed his seat amid tremendous cheering, which lasted for a considerable time.—*Punch.*



PATENT PORTABLE RAIL-ROAD HORSE POWER AND THRESHING MACHINE.

THE above celebrated Machines have, during the past year been more extensively sold and introduced than any year previous; and, what is most gratifying to the manufacturers, they give most unqualified satisfaction. Upwards of three hundred and fifty setts mostly for two horses, have been sold the past season without supplying the d> and for them.

With our present increased facilities for their manufacture, and some additional improvement in their construction and materials, they are now offered to the public with increased confidence in their superiority over all other kinds of threshing machines for the farmers own use and economy.

Their durability is no longer a question, they having been in use for the last seven or eight years without any perceptible wear or expense, further than the oil and a new plank flooring for the horses every twenty or thirty thousand bushels of grain, which any farmer or mechanic can replace at his leisure.

Some of the advantages of the above machines to the farmer are, their *portability* and *compactness*, admitting of their use inside of barns during all weather, thereby protecting both man and beast, requiring no more room than is necessary for threshing with the flail. The whole may be operated by the force usually about the farm without calling together the whole neighborhood, thereby enabling the farmer to thresh his own grain, and during such time or weather as best suits his own convenience, or take advantage of markets, which last is often no small item in a farmer's receipts.

The One Horse Power requires, with a change of horses once or twice a day, but three men to thresh from seventy-five to one hundred bushels wheat or rye, or double that amount of oats or buckwheat, per day; and with the Double Power, without a change of the horses and with four or five men, double that amount can be done in the same time.

The prices will be about the same as last season, viz:

For the One Horse Power, Threshing Machine and Separator, Bands, &c..... $120
For the Two Horse do. do. do. do. do. do. 150

Portable Saw-Mills for sawing wood, slitting boards, &c., for fencing, and a very useful machine about a farm or work shop, are furnished in complete running order, and adapted to the Horse Powers, for $35.

All articles are warranted to be of the best materials and workmanship, and to come up to the above descriptions, or the purchase money shall be refunded on the machinery being returned within three months, provided the purchaser is not pleased or satisfied with it.

It has been exhibited the last three years at the State Fair and nearly half the County Fairs in this State, and extensively introduced in the States of Ohio, Indiana, Illinois, and Wisconsin, also to some extent in the Canadas. For further particulars, discriptions, terms, &c., &c. see Catalogue of Albany Agricultural Warehouse, furnished gratis on application or by mail—or the Agricultural Papers for the past three or four years. Address

H. L. EMERY,
No. 369 & 371 Broadway, Albany, N. Y.

N. B. May also be had of Jno. Mayher & Co., No. 197 Water street, New York, (who are the only authorized agents for the sale in that city,) at the manufacturers' home prices.

Take Notice.

THREE Months Extra Pay and One Hundred and Sixty Acres of Land will be procured for all who enlisted for five years, or during the War of 1812, and for, all including Volunteers who served in Mexico, and for the heirs of all who have died in the service.

Information will be given to relatives, Free of Charge, by writing to

G. F. LEWIS,
Detroit, Michigan
Postage Paid.

Those who do not know what became of their friends, write when and where they joined the army.

Spring Grains.

150 bushels *Club Wheat*, a choice variety, certain of maturity, and yields well—a larger and lighter colored berry than the Black Sea.

500 bushels *Black Sea Wheat*. This has long been known, and is highly praised on account of its never failing from weevil, rust, or anything which so often destroys wheat of different kinds.

200 bushels Spring Rye.

500 bushels Timothy Seed, mostly reaped

A large supply of Large Clover, White Clover, with a full assortment of Garden Seeds, for sale at the lowest rates at the Albany Agricultural Warehouse and Seed Store, No. 369 and 371, Broadway, Albany. H. L. EMERY.

Seneca Lake Highland Nurseries,

CATHARINE, CHEMUNG COUNTY, N. Y.

WITH Nursery and Standard Trees, this establishment covers forty acres. Fruit trees of the best varieties, at reduced prices, wholesale or retail, of all the kinds suitable to this climate. Ornamental Trees and Shrubs of all the most rare kinds, both Deciduous and Evergreen; Green House Plants; in short, a Nursery in all its parts. Trees can be furnished of the new and popular "Wagener" apple, also the Dause or Hawley.

Trees carefully packed and forwarded by public conveyance to any part of the Union. Being located within two miles of the Chemung Rail Road, used by the New York and Erie Company, their agents certificate will be forwarded by mail on their delivery. Packages will reach the New York and Erie Road at Elmira, 16 miles south of this, and the Buffalo and Albany route at Geneva, 45 north, which makes it a very desirable location for sending trees by public conveyance. Neither the Pear or Plum Blight, or Peach Yellows, are known at this location.

The Horticultural Advertiser, containing a priced Catalogue, furnished gratis to all post-paid applicants.

January, 1850. E. C. FROST.

Fruit Scions.

I AM now ready to supply Scions for grafting for 1850, which can be sent by *mail* or Express; and in all cases they have been cut from orchards familiar to me, and by persons in whom I can confide.

APPLES.

Northern Spy,	Norton's Melon,
Early Joe,	Canada Red,
Fameuse,	Ribstone Pippin,
Yellow Bellflower,	Esopus Spitzenburgh,
Pomme Gris.	

When possible, shall send specimens of the fruit.

Price One Dollar per hundred. Post-paid applicants shall have prompt attention. Address JAMES H. WATTS,
Rochester, Monroe Co., N. Y.

January 1, 1850.

P. S. Also a few Scions of the "Wagener" apple, which the State Society awarded a premium for of $5

Wanted,

AT THE OLD ROCHESTER NURSERY, a few thousand two years old seedling Apple, Pear, and Quince trees. Post paid offers, stating quantity, quality, and price, will receive attention. S. MOULSON, 36 Front St., Rochester.

For Sale.

TWO Short Horned Bull Calves, one year old in April next. In color one is red, the other red with some white, both descended from the Bull "Yorkshireman," bred by the late THOS. BATES, Esq. *Letters of inquiry, post-paid*, will be attended to.

Auburn, Jan. 11, 1850. [2-2t] J. M. SHERWOOD.

REVOLUTION IN PERIODICAL

LITERATURE HOLDEN'S ILLUSTRATD DOLLAR MAGAZINE. Since the death of the projector of this popular Magazine, the property has passed into the hands of the subscriber, who will continue to publish it at the Publication Office, No. 100 NASSAU ST., New-York.

The New Volume,

To be commenced on the First of January 1850, will comprise many important improvements, which, is beleived, will render the Magazine one of the best Periodicals published in the country, as it certainly is the cheapest. Among these improvements will be new and beautiful type, fine calendered paper, a higher order of illustrations than those heretofore given, and contributions from some of the ablest writers in America. It is the aim of the Proprietor to publish a Popular Magazine, adapted to the wants of all classes of reading-people in the Republic, which shall be both instructive and amusing; and free alike from the grossness which characterizes much of the cheap literature of the day, and from the vapidity of the so-called "Ladies Magazines." The illustrations will consist of Original Drawings engraved on wood by the best artists;

PORTRAITS OF REMARKABLE PERSONS AND VIEWS OF REMARKABLE PLACES,

illustrated by pen and pencil. A strict revision will be exercised that no improper article, or word, shall ever be admitted, so that it may be safely taken by persons of the utmost refinement, and read at the fireside for the amusement or instruction of the family circle.

The Review department of the magazine will contain brief critical notices of all the new publications of the day, and will form a complete chronicle of current literature.

From the business and literary connxions already established, the best assistance that the country can afford will be secured for completing the plans of the Publisher, and nothing will be wanting that ample pecuniary resources and watchful industry can obtain to make the Magazine the leading

LITERARY PERIODICAL OF AMERICA.

The extremely low rate at which it is published precludes the hope of profit, except from a circulation greater than that which any literay periodical has ever yet attained; but, with the new avenues daily opening for the circulation of works of merit; the constantly increasing pouplation of the country; the cheapness of the Magazine, and the superiority of its literary and artistic attractions to those of any other work now issued; the proprietor fearlessly engages in an enterprise which will be sure to benefit the public if it should not enrich himself.

The Magazine will be under the Editorial charge and supervision of CHARLES F. BRIGGS, who has been connected with it from the beginning.

The "PULPIT PORTRAITS," a series of Biographical Sketches, accompanied by well engraved Portaits of Eminent Divines of the American Churches, which have formed a conspicuous feature of "HOLDEN," will be continued in the succeeding Volumes of the Magazine, and will render it of peculiar value to religious people of every denomination.

THE FIFTH VOLUME

will commence on the First of January next, but will be issued on the 15th of December. Each number will consist of 64 PAGES, AND NUMEROUS ENGRAVINGS. The Terms are

ONE DOLLAR A YEAR

in Advance; the Magazine will be plainly and carefully directed and sent by mail AT THE RISK OF THE SUBSCRIBER. As each number will be sterotyped, missing or lost numbers can at any time be supplied when ordered, but will be deducted from the time for which payment has been received. Remittances may be sent at the risk of the Proprietor, provided a description of the bills are taken, and enclosed in presence of the Postmaster as evidence of the fact.

Five copies will be furnished for $4, and 20 copies for $15. Nos. for the year 1848, excepting the month of January, will be furnished at 4 cents each, and Bound Volumes in cloth with gilt edge, from July to December inclusive, at $1 each.

Newspaper publishers who will insert this Prospectus four times, and notice the Magazine monthly, will receive a Bound Volume for the year 1849, and an exchange for the coming year; they are requested to send only those papers in which the Prospectus and notice appear. Letters must be addressed to "Holden's Dollar Magazine, No. 109 Nassau st., New York," and POST PAID in all cases.

Jan. 1850. WM. H DIETZ. Proprietor.

Engraving.

E. BALDWIN, would respectfully inform his friends and the public generally that he has located himself in Rochester, and is prepared to execute all descriptions of Engraving, Seals, Labills, Machinery, Visiting and Wedding Cards, Letters, Book and Cloth stamps, Views of Buildings or Animals, in short every thing in his line will be done neatly and reasonably. He will also keep on hand an assortment of

JUVENILE BOOKS,

such as Young Toy Books, Dream Books, Primmers, &c., illustrated with fine wood cuts, plain and colored. Letter and fancy envelops, motto wafers, Prints, Lead pencils, &c..&c., which he will sell for cash at New-York prices. All those wishing anything in his line will please call at No 15 third floor Reynolds Arcade, Rochester N. Y.

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BY DERBY, MILLER AND CO., AUBURN,

THE AMERICAN FRUIT CULTURIST,

BY J. J. THOMAS.

CONTAINING directions for the propagation and culture of Fruit Trees, in the Nursery, Orchard, and Garden, with descriptions of the principal American and Foreign varieties cultivated in the United States. By J. J. THOMAS. One volume 12 mo. of over 400 pages. With 300 accurate Illustrations.—Price $ 1,00

NOTICES OF THE PRESS.

"Among all the writers on fruits, we do not know of one who is Mr. Thomas's superior, if his equal, in condensing important matter. He gets right at the pith of the thing—he gives you that which you wish to know at once; stripped of all useless talk and twattle. No man has a keener eye for the best ways of doing things. Hence we always look into his writings with the assurance that we shall find something new, or some improvement on the old; and we are seldom disappointed.

This book is no exception. It is *full*. There is no vacant space in it. It is like a fresh egg—all good, and packed to the shell-full."—*Prairie Farmer*.

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"An equally valuable, but cheaper book than Downing's, was wanted by the great mass. Just such a work has Mr. Thomas given us. We consider it an invaluable addition to our agricultural libraries."—*Wool Grower*.

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February 1, 1850. [2-3t.]

ELIHU BURRITT'S NEWSPAPER.

THE CHRISTIAN CITIZEN.

ELIHU BURRITT, Proprietor.

EDITORS—ELIHU BURRITT and THOMAS DREW, JR.

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THE SEVENTH VOLUME of this large and popular Family Newspaper commenced on the first of January, 1850.—TERMS, ONE DOLLAR AND FIFTY CENTS per annum, invariably in advance. Four copies for Five Dollars.

The Citizen is the organ of no party or sect, but expresses freely the sentiments of its editors upon all the great reformatory questions of the day. Sympathizing with all the great enterprizes of Christian benevolence, it speaks against all war in the spirit of peace. It speaks for the slave, as a brother bound; and for the abolition of all institutions and customs which do not respect the image of God and a human brother, in every man, of whatever clime, color or condition of humanity. All orders should be *post paid*, and directed to either of the editors, at Worcester, Mass.

To Seedsmen and Dealers.

The subscribers are prepared to import on very favorable terms, from the most distinguished and reliable Seed Establishments in London or on the continent of Europe, seeds in quantities, and of a quality in which *the utmost dependence may be placed*. The seeds will be forwarded in the original packages and original invoices furnished. Persons wishing to import may thus avail themselves of the experience of the subscribers, by the payment of a small commission. JAS. M. THORBURN. & Co.

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☞Red Top—Orchard—Ray and other grasses—White Dutch Clover—Lucerne etc. etc., low by the quantity.

Nov. 1 1849.

THE AMERICAN POULTRY YARD: Comprising the Origin History, and Description of the Different Breeds of Domestic Poultry, with Complete Directions for their Breeding, Crossing, Rearing, Fattening, and Preparation for Market; including Specific Directions for Caponizing Fowls, and for the Treatment of the Principal Diseases to which they are subject. Drawn from Authentic Sources and Personal Observation. Illustrated by Numerous Engravings. By D. J. BROWNE, Author of the Sylva Americana. With an Appendix, embracing the Comparative Merits of the Various Breeds of Fowls, by SAMUEL ALLEN.

C. M. SAXTON, Publisher, 121 Fulton st.

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To Fruit Growers and Nurserymen.

SPRING OF 1850.

THE SUBSCRIBERS invite the attention of tree purchasers to their stock now offered for sale. By large importations from Europe, and an extensive scale of propagation in their own grounds, they are enabled to offer one of the most extensive and complete assortments, and on the most liberal conditions.

The well known health, hardiness, and vigor of the trees grown here, and the undivided and scrupulous attention given to every department by the proprietors in person, offer great inducements to purchasers.

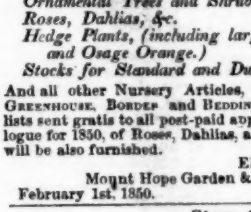
Standard Fruit Trees.
Pyramidal and Dwarf Fruit Trees.
Gooseberries, Currants, Strawberries, &c.
Ornamental Trees and Shrubs.
Roses, Dahlias, &c.
Hedge Plants, (including large quantities of Buckthorn and Osage Orange.)
Stocks for Standard and Dwarf Trees.

And all other Nursery Articles, besides a large collection of GREENHOUSE, BORDER and BEDDING PLANTS. Wholesale priced lists sent gratis to all post-paid applications. A separate Catalogue for 1850, of Roses, Dahlias, and other new and rare articles will be also furnished.

ELLWANGER & BARRY.

Mount Hope Garden & Nurseries, Rochester, N. Y.
February 1st, 1850.

Staw Cutters.



RUGGLES NOURSE & MASON'S Celebrated Hay, Straw and Corn-Stalk Cutter, to which was awarded the FIRST PREMIUM at the New York State Agricultural Fair, Buffalo, on the 7th, 8th and 9th of September, 1848.

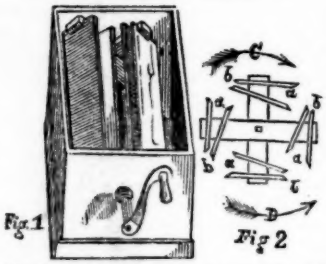
It is now generally conceded that for cutting hay, straw and stalks, these Machines having knives set upon the circumference of a cylinder, and cutting against a roller of raw hide, are the best yet introduced—the work is easily and rapidly performed by simply turning a crank, and the machine is a perfect self-feeder without any extra and complicated fixture to perform that part of the work.

A full supply of 14 different sizes, varying in price from $10 to $28, consantly on hand at the "Genesee Seed Store and Agricultural Warehouse," Irving Block, Buffalo street, Rochester.

We have also on hand a good supply of six other kinds, which make our assortment the best of any to be found in the State.

RAPALJE & BRIGGS.

New Patent Churn.



UNTIL the Churn above represented came to our notice, our assortment has been made up of the KENDALL'S CYLINDER — THE THERMOMETER, and THE COMMON DASH CHURN, believing them equal, if not superior, to any of the multitude of new things recently offered throurh the country, called churns.

Our course has ever been to deal in or recommend only such articles to the farming public as we have known from our long experience, in selling and manufacturing, to be well worthy of the recommendations given them through our advertisements.

The above cut represents the only new churn which, to our mind has any advantages over the others above named, among the great number offered. Although comparatively a new article, it has during the past season been thoroughly tested by a good number of dairymen in Chenango and Orange Counties, and with unprecedented success. Its construction is simple, having four pairs of broad flats or blades, all confined together, as represented in our end view at (fig. 2) which, when turned in the direction of the arrow C., causes the cream to be compressed, and pass between the blades from A. to P. This process being continued until the butter gathers into lumps too large to pass thro' at A., then the motion to be reversed in direction of arrow D., the whole mass is thrown by the action of the angle of the inner blade, to the centre, where the butter is gathered rapidly into one solid roll and the separation becomes complete. There being no rod running through the churn, the floats may be instantly removed, and the butter taken out.

This form of float moves easily through the cream, and at the same time is more effective in its operation than any others we have seen.

The process of collecting and compressing of the particles together, is not probably excelled by any previous inventions.

A silver medal was awarded to this churn at the American Institute, in New York, in October last, for the best churn offered among almost an endless variety of kinds in the same exhibition.

They are offered for sale at about the same prices as KENDALL'S CYLINDER CHURN, according to sizes.

They are warranted to give satisfaction, or they may be returned and the purchase money refunded.

Albany Agricultural Warehouse, No. 369 and 371 Broadway, Albany. HORACE L. EMERY.

ADVERTISEMENTS.—A limited number of short and appropriate advertisements will be given in the Farmer, at the rate of $1,50 per square or folio (ten lines or 100 words) for the first insertion, and $1 for each subsequent publication—IN ADVANCE. The circulation of the Farmer is from FIVE to EIGHT thousand LARGER than that of any other agricultural journal published in the United States.

First in Beauty and Value — Cheapest and Most Popular.

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A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF

Farm Buildings, Domestic Animals, Implements, Fruits, &c

VOLUME XI, FOR 1850.

DANIEL LEE & JAMES VICK, JR., EDITORS.

P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, in Advance.

FIVE Copies for $2; Eight Copies for $3, and any larger number at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

☞ POST-MASTERS, AGENTS, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

Subscription money, if properly enclosed, may be sent (post-paid or free,) at the risk of the Publisher. Address to

DANIEL LEE.

December, 1849. *Rochester, New York.*

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.